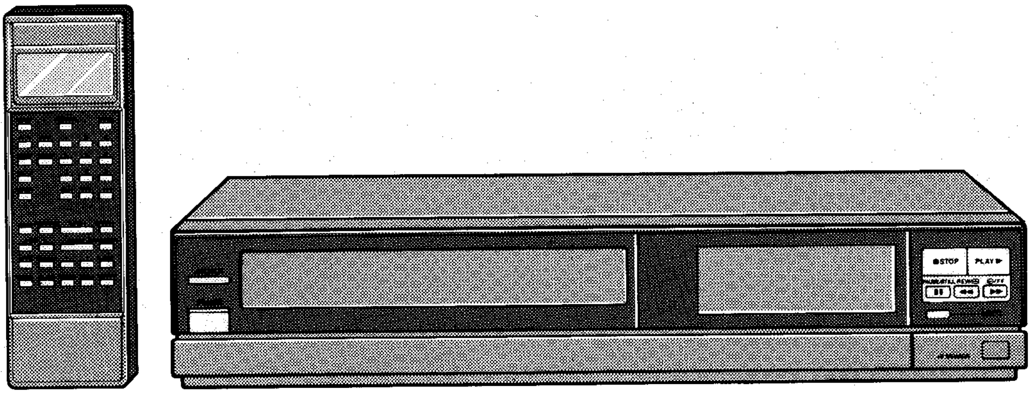
SANYO

Parts List & Circuit Diagrams

Video Cassette Recorder

VHR-7500G (West Germany)
VHR-7540G (West Germany)
VHR-7530G (West Germany)
VHR-7500EX (Europe)
VHR-8500SP (Spain)



EXCEPT VHR-7540G

VHS PAL HQ

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Circuit Diagram

Please see other materials with Reference No. given in table below.

Materials	Model No.	Reference No.
Service Manual	VHR-7500, 8500 Series	WM-530660
Mechanism Manual	P90 Mechanism	WM-530599

PRODUCT SAFETY NOTICE

The components designated by a symbol (⚠) in this schematic diagram designates components whose value are of special significance to product safety. Should any component designated by a symbol need to be replaced, use only the part designated in the Parts List. Do not deviate from the resistance, wattage and voltage ratings shown.

NOTE: 1. Parts order must contain Model Number, Part Number and Description.
2. N.S.P.: Not available as service parts.

RP4/G-C1F, RP4V/G-C1F 143 810 16, 09
RP4/G-2, EX, SP 143 130 25, 125 80, 81

REFERENCE No. WM-530661

ACCESSORIES

LOCATION	PARTS NO.	DESCRIPTION
	613 112 7883	REMOCON(VHR-7500G,7530G)
OR	613 111 8270	REMOCON(VHR-7540G)
OR	613 111 4210	REMOCON(VHR-7500EX,8500SP)
	613 115 1642	INSTRUCTION MANUAL(VHR-7500G)
OR	613 115 3684	INSTRUCTION MANUAL(VHR-7540G)
OR	613 114 0134	INSTRUCTION MANUAL(VHR-7530G)
OR	613 111 6382	INSTRUCTION MANUAL(VHR-7500EX)
OR	613 111 6399	INSTRUCTION MANUAL(VHR-8500SP)
	613 096 6773	CABLE,ANT
	613 082 5384	INSTRUCTION MANUAL,VPT (VHR-7540G ONLY)
	613 064 7047	GUARANTEE CARD(VHR-8500SP ONLY)

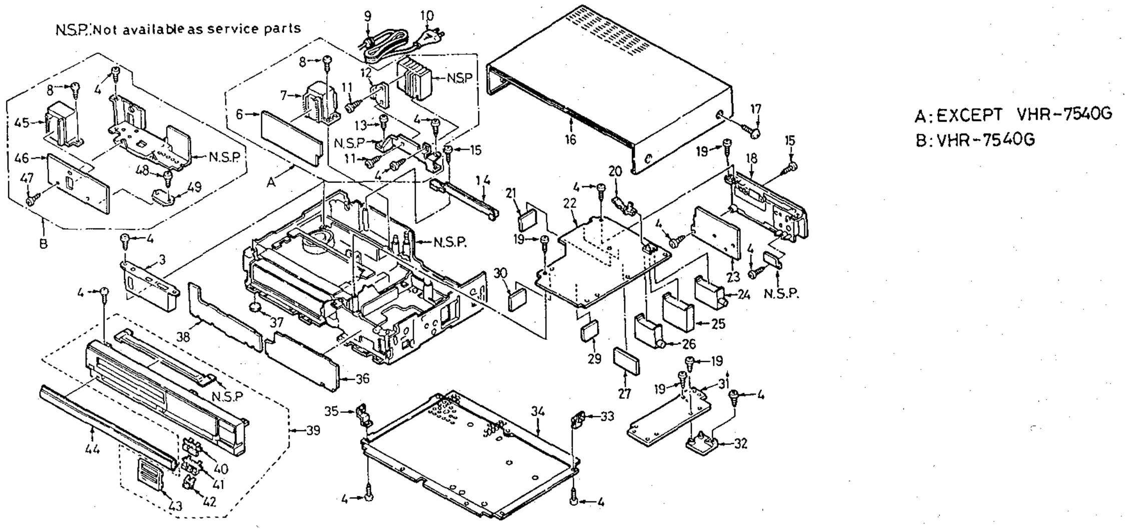
PACKING MATERIALS

LOCATION	PARTS NO.	DESCRIPTION
	613 115 1635	CORR CASE,INNER(VHR-7500G)
OR	613 115 3677	CORR CASE,INNER(VHR-7540G)
OR	613 114 0035	CORR CASE,INNER(VHR-7530G)
OR	613 111 6283	CORR CASE,INNER(VHR-7500EX)
OR	613 111 6290	CORR CASE,INNER(VHR-8500SP)
	613 093 7803	CUSHION,INNER,FRONT
	613 093 7810	CUSHION,INNER,BACK
	613 095 1229	POLYE COVER,INNER
	613 107 8970	BAR CODE LABEL

CABINET & CHASSIS PARTS

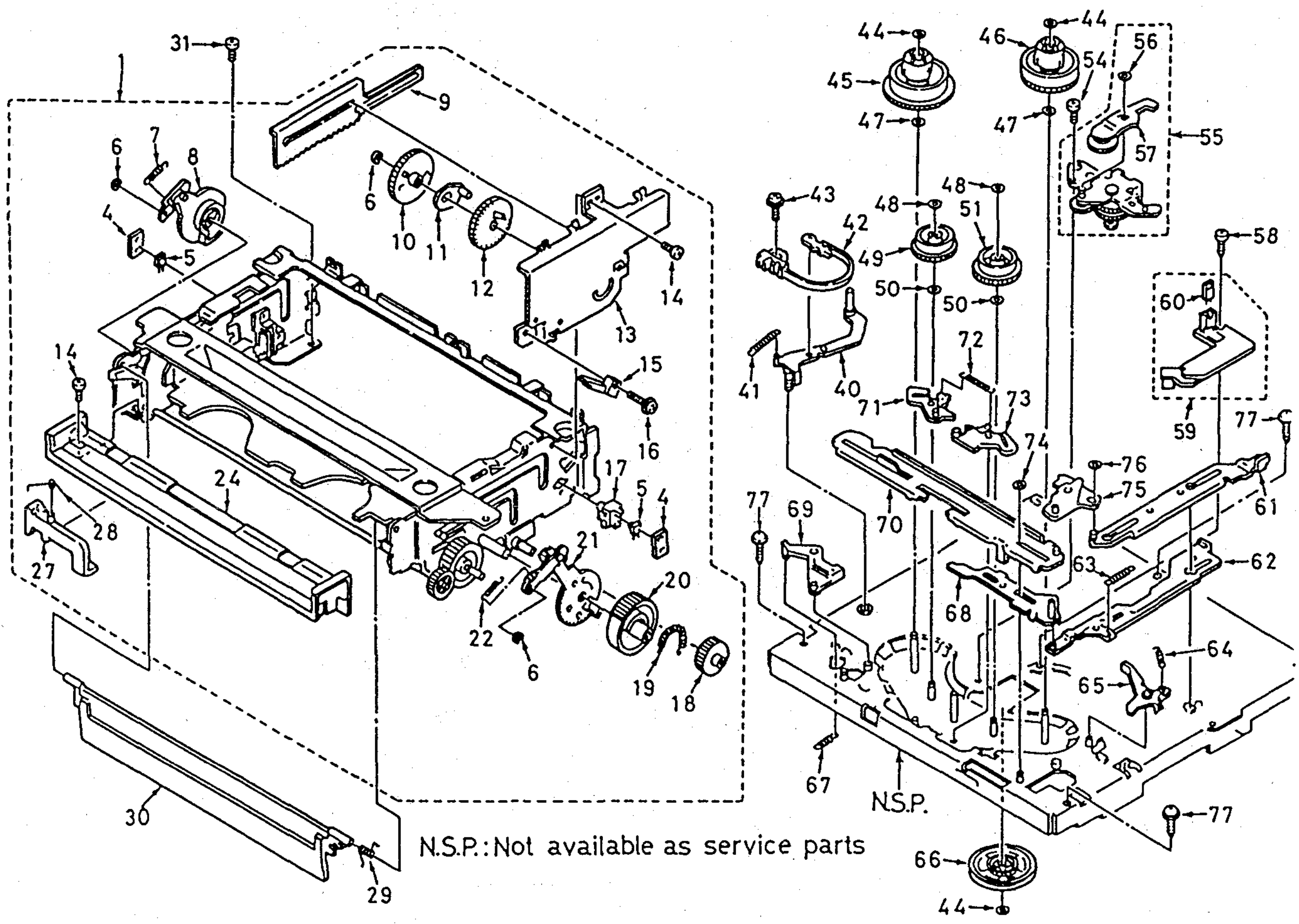
LOCATION		PARTS NO.	DESCRIPTION
3		613 110 9681	COMPL,VP-1
4		411 137 0007	SCR L-TPG BIN 3X10
6		613 109 4505	COMPL,PW-1(VHR-7500G,7530G)
OR		613 109 4512	COMPL,PW-1(VHR-7500EX,8500SP)
7	⚠	613 110 4211	TRANS,POWER,T5001(EXCEPT VHR-7540G)
8		411 021 9604	SCR S-TPG BIN 4X8
9	⚠	613 053 6686	FIXER
10	⚠	613 086 0507	CORD,POWER
OR	⚠	613 086 2150	CORD,POWER
11		411 021 4500	SCR S-TPG BIN 3X16
12		613 109 4529	COMPL,PW-2(EXCEPT VHR-7540G)
13		411 021 5705	SCR S-TPG BIN 3X6
14		613 077 3487	BLIND
15		411 021 3701	SCR S-TPG BIN 3X10
16		613 109 3782	COVER,TOP
17		412 024 7604	SPECIAL SCREW
18		613 097 3351	TERMINAL(INCLUDE CP-A)
19		411 021 3800	SCR S-TPG BIN 3X10
20		613 059 4198	SPRING PLATE
21		613 108 4186	COMPL,VD-1(EXCEPT VHR-8500SP)
22		613 115 1826	COMPL,CP-A(VHR-7500G)
OR		613 115 3707	COMPL,CP-A(VHR-7540G)
OR		613 114 4576	COMPL,CP-A(VHR-7530G)
OR		613 112 5605	COMPL,CP-A(VHR-7500EX)
OR		613 112 5612	COMPL,CP-A(VHR-8500SP)
23		613 111 3176	COMPL,TB-1(VHR-7500G,7530G)
OR		613 111 3183	COMPL,TB-1(VHR-7540G)
OR		613 111 3169	COMPL,TB-1(VHR-7500EX,8500SP)
24		613 080 5836	MODULATOR,RF
OR		613 093 2990	MODULATOR,RF
25		613 107 0547	IF PACK(EXCEPT VHR-7530G)
OR		613 108 3585	IF PACK(VHR-7530G)
26		613 107 0530	TUNER PACK(VHR-7500G,7540G,8500SP)
26		613 107 9410	TUNER PACK(VHR-7530G)
OR		613 113 7974	TUNER PACK(VHR-7500EX)
27		613 109 4420	COMPL,TN-7(EXCEPT VHR-7500EX)
OR		613 109 1030	COMPL,TN-7(VHR-7500EX)
29		613 108 5534	COMPL,TM-8(VHR-7500G,7530G,7540G)
30		613 109 4550	COMPL,SY-7
31		613 111 3589	COMPL,VPT UNIT(VHR-7540G ONLY)
32		613 096 4465	BRACKET,VPT(VHR-7540G ONLY)
33		613 048 6912	BRACKET
34		613 022 0578	COVER,BOTTOM
35		613 022 0738	BRACKET,CABINET
36		613 112 5056	COMPL,TM-1(VHR-7500G,8500SP)
OR		613 112 5063	COMPL,TM-1(VHR-7540G)
OR		613 114 3456	COMPL,TM-1(VHR-7530G)
OR		613 112 5070	COMPL,TM-1(VHR-7500EX)
37		613 047 1772	STAND
38		613 108 9761	COMPL,TM-2
39		613 110 6796	ASSY,CABINET,FRONT
40		613 109 1979	HINGE BUTTON,STOP PLAY
41		613 109 1986	HINGE BUTTON,PAUSE REW FF
42		613 109 1993	HINGE BUTTON,REC
43		613 109 1948	ESCUTCHEON
44		613 111 6825	ASSY,DOOR(VHR-7500G)
OR		613 111 6832	ASSY,DOOR(VHR-7540G)
OR		613 114 0905	ASSY,DOOR(VHR-7530G)
OR		613 111 6849	ASSY,DOOR(VHR-7500EX)
OR		613 111 6856	ASSY,DOOR(VHR-8500SP)
45		613 110 5928	TRANS,POWER,T5001(VHR-7540G ONLY)
46		613 110 7922	COMPL,PW-1(VHR-7540G ONLY)
47		411 021 6405	SCR S-TPG BIN 3X8
48		411 021 4302	SCR S-TPG BIN 3X14
49		409 214 8909	IC511,STK7576,INCLUDE PW-1 (VHR-7540G ONLY)

N.S.P.:Not available as service parts



MECHANISM PARTS 1

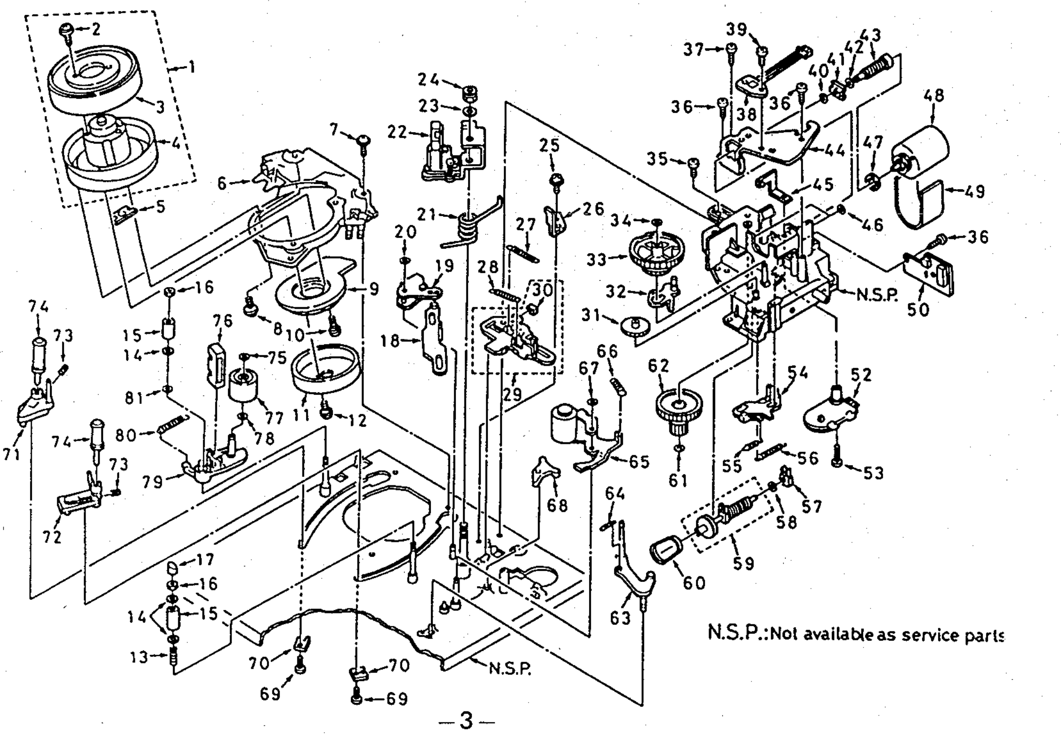
LOCATION	PARTS NO.	DESCRIPTION
1	613 087 4412	COMPL,CASSETTE MECHA
4	613 022 0585	LID
5	407 098 3201	PHOTO COUPLE PN150SAN
6	411 015 9801	RING E 2.3
7	613 022 1643	SPRING,LINK L
8	613 022 0073	ASSY,GEAR,LEVER L
9	613 022 2695	RACK
10	613 022 2633	GEAR,LOCK
11	613 021 9916	ASSY,LEVER,PINION
12	613 022 2626	GEAR,PINION
13	613 021 9657	ASSY,BRACKET,GEAR
14	411 027 1305	SCR S-TPG BIN 2.6×4
15	613 006 4479	SPECIAL SWITCH
OR	613 095 0949	SPECIAL SWITCH
16	411 106 9208	SCR PAN+SW+W 2×9
17	613 022 0936	HOLDER,TRANSISTOR
18	613 022 2619	GEAR,IDLER
19	613 022 1667	SPRING,GEAR MAIN
20	613 022 2596	GEAR,MAIN
21	613 022 0097	ASSY,GEAR,LEVER R
22	613 022 1674	SPRING,LINK R
24	613 022 4064	BOARD,UNDER
27	613 022 2237	LEVER,SAFETY SWITCH
28	613 022 1827	SPRING,SAFETY SWITCH
29	613 022 1803	SPRING,DOOR
30	613 111 5330	CASSETTE DOOR
31	411 001 8702	SCR BIN 3×6
40	613 100 0391	ASSY,LEVER,TENSION
41	613 085 7996	SPRING,LEVER TENSION
42	613 021 9701	ASSY,HOLDER,BAND
43	411 036 2805	SCR PAN+SW+W 2.6×6
44	411 109 1605	WASHER Y 2.6×6×0.25
45	613 078 8375	ASSY,REEL,SUPPLY
46	613 022 0110	ASSY,REEL,TAKE UP
47	412 021 5306	SPECIAL WASHER 3.1×6×0.3
OR	412 015 8900	SPECIAL WASHER 3.1×6×0.4
OR	412 015 8504	SPECIAL WASHER 3.1×6×0.5
48	411 109 1506	WASHER Y 2.1×6×0.25
OR	411 109 1407	WASHER Y 2.1×5×0.25
49	613 098 7174	GEAR,REEL SUPPLY
50	412 026 7305	SPECIAL WASHER 2.6×6×0.25
51	613 098 7181	GEAR,REEL TAKE UP
54	411 031 0905	SCR BIN 2.6×4
55	613 085 7101	COMPL,IDLER,CLUTCH
56	411 120 1301	WASHER Y 2.1×4×0.25
57	613 022 0134	ASSY,IDLER
58	411 021 3107	SCR S-TPG BIN 2.6×8
59	613 078 6302	COMPL,MC-4
60	407 016 7205	LED LN59
61	613 021 9985	ASSY,SLIDE,ACT PLATE
62	613 112 8088	SLIDE,CONTROL BRAKE
OR	613 021 9992	ASSY,SLIDE,C BRAKE
63	613 022 1612	SPRING,RETURN SLIDE
64	613 022 1506	SPRING,SUB T
65	613 098 0106	ASSY,BRAKE,SUB T
66	613 077 3647	PULLEY,REEL
67	613 022 1490	SPRING,SUB SUPPLY
68	613 022 2374	SLIDE,ACT BRAKE
69	613 084 8871	BRAKE,SUB SUPPLY
70	613 022 0004	ASSY,SLIDE,M PLATE
71	613 080 9216	ASSY,BRAKE,SUPPLY
72	613 086 2914	SPRING,MAIN BRAKE
73	613 080 9209	ASSY,BRAKE,TAKE UP
74	411 109 3005	WASHER Y 2.6×5×0.5
75	613 022 2015	LEVER,CONT PLATE
76	412 015 9501	SPECIAL WASHER
77	411 021 7907	SCR S-TPG BIN 4×12



N.S.P.: Not available as service parts

MECHANISM PARTS 2

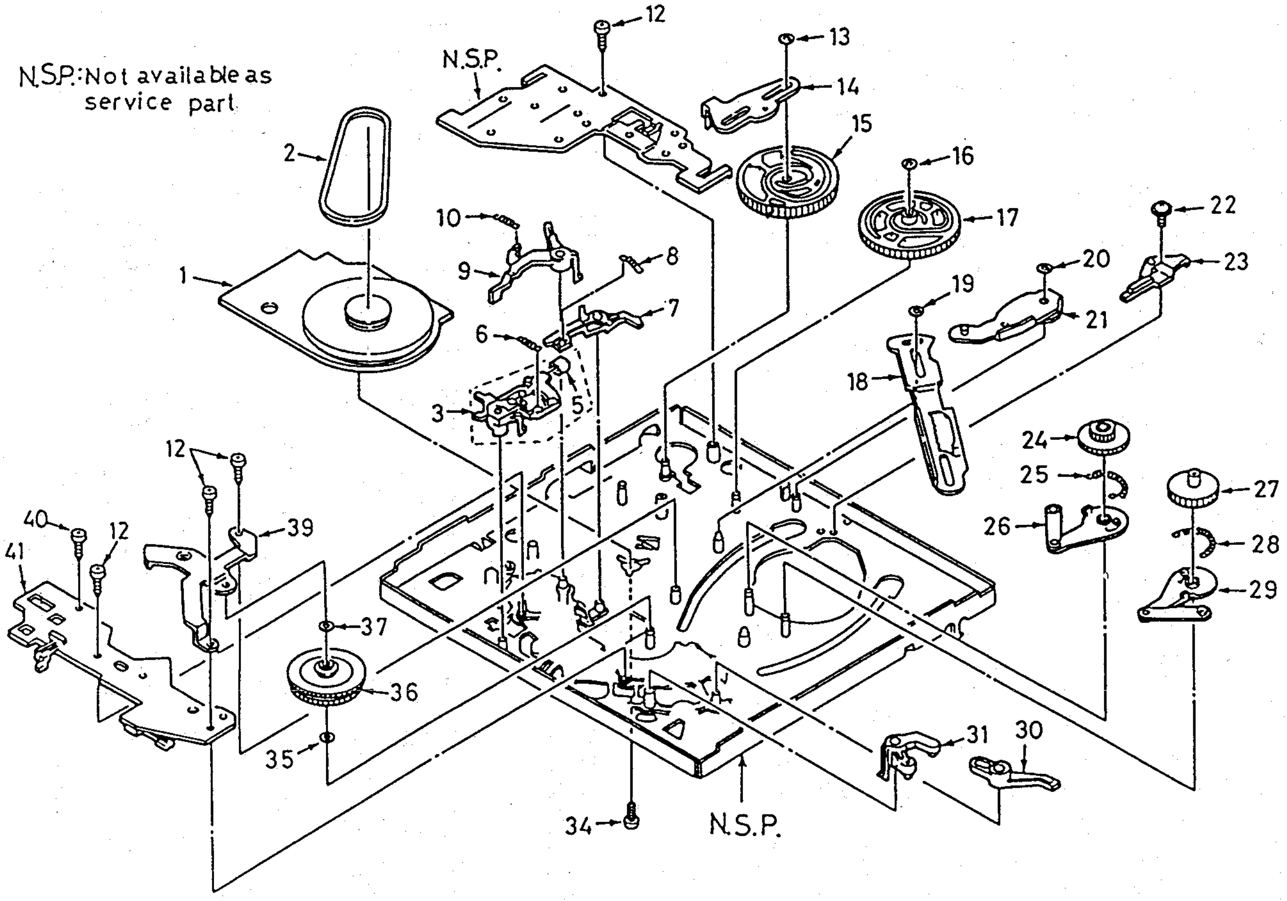
LOCATION	PARTS NO.	DESCRIPTION
1	613 096 2812	COMPL,CYLINDER,2N4P-R
OR	613 096 5059	COMPL,CYLINDER,2N4P-R
2	411 038 1608	SCR PAN+W 3×8
3	613 096 2829	ASSY,CYLINDER,UPR 2N4P-R
OR	613 096 5073	ASSY,CYLINDER,UPR 2N4P-R
4	613 022 0325	ASSY,CYLINDER,LWR 4
OR	613 078 8566	ASSY,CYLINDER,LWR 4
5	613 081 4036	SPACER,MOTOR
6	613 022 1001	BASE,CYLINDER
OR	613 088 9072	BASE,CYLINDER
7	411 047 7509	SCR PAN+FLG 3×6
8	411 047 5000	SCR PAN+FLG 2.6×8
OR	412 030 9708	SPECIAL SCREW 2.6×8
9	613 085 7279	STATOR,MOTOR CYLINDER
10	411 044 9209	SCR PAN+SW 2.3×8
OR	411 044 8301	SCR PAN+SW 2.3×10
11	613 022 4019	ROTOR,MOTOR CYLINDER
12	411 044 9001	SCR PAN+SW 2.3×6
13	613 022 1766	SPRING,ADJUST GUIDE
14	613 053 3227	SPECIAL WASHER
15	613 058 3307	TAPE GUIDE
16	412 026 2607	SPECIAL NUT (M3)
17	613 085 2434	CAP
18	613 021 9961	ASSY,SLIDE,ACT PINCH
19	613 021 9800	ASSY,LEVER,CAM PINCH
20	411 109 2008	WASHER Y 3.1×8×0.5
21	613 022 1797	SPRING,ACE HEAD
22	613 021 9640	COMPL,BRACKET,HEAD
23	613 051 4615	SPACER
OR	613 110 1692	SPACER
24	412 015 8207	SPECIAL NUT (M5)
25	411 120 0007	SCR PAN+SW+W 2.6×5
26	613 022 0752	BRACKET,STOPPER
27	613 022 1575	SPRING,LINK LOCK
28	613 022 1582	SPRING,SLIDE BRAKE
29	613 094 9233	ASSY,SLIDE,CAM
30	613 022 2725	DAMPER
31	613 022 2534	GEAR,FRONT LOAD
32	613 094 1206	ASSY,LEVER,FRONT
33	613 077 3586	GEAR,HELICAL FRONT
34	613 027 0504	WASHER 4.1×6.5×R5T
35	411 046 8002	SCR PAN+SW+W 2.6×6
36	411 023 2801	SCR S-TPG PAN 2.6×6
37	411 021 3107	SCR S-TPG BIN 2.6×8
38	613 089 4328	ASSY,SENSOR,DEW
39	411 040 2303	SCR PAN 2.6×5
40	613 053 2381	SPECIAL WASHER
41	613 077 3227	HOLDER,WORM
42	613 027 0382	WASHER
43	613 078 8320	ASSY,WORM,FRONT
44	613 117 0599	BRACKET,HOLDER
OR	613 111 8522	BRACKET,HOLDER
OR	613 110 1203	BRACKET,HOLDER
OR	613 092 5862	BRACKET,HOLDER
45	613 093 9159	PLATE,NUT
46	613 093 8374	DAMPER,MOTOR
47	613 077 3616	DAMPER,WORM
48	613 021 9527	ASSY,LOADING MOTOR
49	613 092 9945	DAMPER,MOTOR
50	613 107 2732	COMPL,MC-3
52	613 110 0374	ROTARY SWITCH
53	411 126 5303	SCR PAN 2.6×13
54	613 092 9921	ASSY,SLIDE,FRONT
55	613 092 5985	SPRING,LEVER LOAD
56	613 092 5992	SPRING,LEVER ACT
57	613 092 5886	HOLDER,WORM
58	613 027 0627	WASHER 2.1×6×0.5
59	613 092 9938	ASSY,WORM,LOAD
60	613 022 2985	BELT,LOADING
61	412 033 4106	WASHER SLIT 2.6×5×0.5
62	613 077 3579	GEAR,HELICAL
63	613 102 9293	ASSY,LEVER,REV GUIDE
64	613 022 1568	SPRING,REVIEW LEVER
65	613 022 0158	COMPL,PINCH ROLLER
66	613 022 1483	SPRING,PINCH ROLLER
67	411 109 2107	WASHER Y 3.6×6×0.5
68	613 078 8160	COMPL,LEVER,ACT BRAKE
69	411 031 1209	SCR BIN 2.6×5
70	613 022 1919	PLATE,GUIDE
71	613 021 9725	ASSY,BASE,ROLLER S
72	613 021 9732	ASSY,BASE,ROLLER T
73	411 063 0904	SCR SET HEX-SCT 2×3
74	613 022 0233	ASSY,GUIDE,ROLLER
75	411 109 2602	WASHER Y 1.5×4×0.25
76	613 022 4224	HEAD,FULL ERASE
77	613 022 2817	IMPEDACE ROLLER
78	412 032 5807	SPECIAL WASHER 2.1×5×0.13
79	613 093 8305	ASSY,LEVER,FE HEAD
80	613 022 1698	SPRING,ERASE HEAD
81	411 109 1704	WASHER Y 6.4×10×0.25



N.S.P.:Not available as service parts

LOCATION	PARTS NO.	DESCRIPTION
MECHANISM PARTS 3		
1	613 022 4491	MOTOR,CAPSTAN
OR	613 080 8929	MOTOR,CAPSTAN
2	613 022 2978	BELT,REEL DRIVE
3	613 021 9848	ASSY,LEVER,CLUTCH
5	613 079 1023	DAMPER,LEVER CLUTCH
6	613 022 1520	SPRING,LEVER CLUTCH
7	613 082 3434	LEVER,CHANGE CLUTCH
8	613 022 1711	SPRING,CHANGE CLUTCH
9	613 081 7518	ASSY,BRAKE CAPSTAN
10	613 098 2285	SPRING,CAPSTAN
12	411 021 3107	SCR S-TPG BIN 2.6×8
13	411 109 2008	WASHER Y 3.1×8×0.5
14	613 021 9978	ASSY,SLIDE,CAM PLATE
15	613 022 2701	CAM,MODE
16	411 109 1902	WASHER Y 3.1×6×0.5
17	613 022 2718	CAM,MAIN
18	613 022 2664	RACK,LOAD
19	411 109 1803	WASHER Y 2.6×6×0.5
20	411 109 2107	WASHER Y 3.6×6×0.5
OR	411 109 2206	WASHER Y 3.6×8×0.5
21	613 021 9794	ASSY,LEVER,CAM LOAD
22	411 047 6809	SCR PAN+FLG 3×4
23	613 021 9763	ASSY,EARTH,CYLINDER
24	613 090 6380	GEAR,LOAD TAKE UP

LOCATION	PARTS NO.	DESCRIPTION
25	613 022 1551	SPRING,GEAR LOAD T
26	613 021 9879	ASSY,LEVER,LOAD T
27	613 090 6373	GEAR,LOAD SUPPLY
28	613 022 1704	SPRING,GEAR LOAD S
29	613 021 9862	ASSY,LEVER,LOAD S
30	613 022 2039	LEVER,RETURN TENSION
31	613 091 3104	ASSY,LEVER CONTROL
34	411 040 2303	SCR PAN 2.6×5
35	412 015 8603	SPECIAL WASHER 3.1×6×0.25
36	613 102 0900	ASSY,GEAR,FRICTION
37	411 109 1605	WASHER Y 2.6×6×0.25
39	613 079 8121	BRACKET,PULLEY
40	411 100 0300	SCR S-TPG BIN 2.6×5
41	613 110 1357	COMPL,MC-1
R1	401 026 0607	CARBON 270 JA 1/6W
OR	401 017 0708	CARBON 270 JA 1/4W
R2	401 024 6700	CARBON 100 JA 1/6W
OR	401 012 4404	CARBON 100 JA 1/4W
R3	401 026 0607	CARBON 270 JA 1/6W
OR	401 017 0708	CARBON 270 JA 1/4W
D1	407 094 1300	PHOTO COUPLE SPI-315-04-C
OR	407 043 0101	PHOTO DIODE ON2170-R
D2	407 094 1300	PHOTO COUPLE SPI-315-04-C
OR	407 043 0101	PHOTO DIODE ON2170-R
SW1	613 022 4545	SPECIAL SWITCH,EP


N.S.P.:Not available as service part

ELECTRICAL PARTS

NOTE;

*Materials of Capacitors and Resistors are abbreviated as follows;

Resistors	
MT-FILE	Metal Film Resistor
MT-GLAZE	Metal Glaze Resistor
OXIDE-MT	Oxide Metal Film Resistor
Capacitors	
MT-POLYEST	Metallized Polyester Capacitor
MT-COMPO	Metallized Composite Capacitor
TA-SOLID	Tantalum Solid Capacitor
AL-SOLID	Aluminum Solid Capacitor
NP-ELECT	Non-Polarized Electrolytic Capacitor
OS-SOLID	Aluminum Solid Capacitors with Organic Semiconductive Electrolytic Capacitor
DL-ELECT	Double Layered Electrolytic Capacitor

*Tolerance of Capacitor(10pF over) and Resistor are noted with follow symboles.

F ············ ±1%　G ············ ±2%　J ············ ±5%　K ············ ±10%
M ············ ±20%　N ············ ±30%　Z ············ +80% ~ −20%

*N.S.P. : Not available as service parts.

LOCATION	PARTS NO.	DESCRIPTION
COMPL,CP-A		
COMPL.NO.	613 115 1826	(VHR-7500G)
COMPL.NO.	613 115 3707	(VHR-7540G)
COMPL.NO.	613 114 4576	(VHR-7530G)
COMPL.NO.	613 112 5605	(VHR-7500EX)
COMPL.NO.	613 112 5612	(VHR-8500SP)
VIDEO CIRCUIT(VD-A)		
B1001	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1201	405 000 6104	TR DTC144ES-DCTP(EXCEPT VHR-8500SP)
OR	405 018 2501	TR 2SC3399-AC(EXCEPT VHR-8500SP)
C1001	403 025 7007	CERAMIC 4.7P D 50V
C1002	403 073 2702	CERAMIC 390P J 50V
C1003	403 026 2209	CERAMIC 47P J 50V
C1004	403 179 4501	NP-ELECT 0.47U M 50V
C1005	403 150 1703	CERAMIC 91P J 50V
C1006	403 071 1509	CERAMIC 180P J 50V
C1007	403 075 4001	CERAMIC 820P J 50V
C1008	403 134 4706	NP-ELECT 2.2U M 50V
C1009	403 001 1906	CERAMIC 0.01U M 16V
C1010	403 121 3408	ELECT 2.2U M 50V
C1011	403 130 2904	ELECT 0.47U M 50V
C1012	403 075 3103	CERAMIC 82P J 50V
C1013	403 068 8801	CERAMIC 100P J 50V
C1014	403 063 2200	POLYESTER 0.068U K 50V
C1015	403 001 1906	CERAMIC 0.01U M 16V
C1016	403 001 1906	CERAMIC 0.01U M 16V
C1017	403 001 1906	CERAMIC 0.01U M 16V
C1018	403 135 4002	ELECT 47U M 6.3V
C1019	403 121 3408	ELECT 2.2U M 50V
C1020	403 107 9905	ELECT 10U M 16V
C1021	403 121 3408	ELECT 2.2U M 50V
C1023	403 001 1906	CERAMIC 0.01U M 16V
C1024	403 121 2104	ELECT 22U M 10V
C1025	403 130 2904	ELECT 0.47U M 50V
C1031	403 001 1906	CERAMIC 0.01U M 16V
C1032	403 139 1403	ELECT 47U M 10V
C1033	403 139 2707	ELECT 1U M 50V
C1034	403 028 3402	CERAMIC 56P J 50V
C1035	403 025 7007	CERAMIC 4.7P D 50V
C1036	403 022 7703	CERAMIC 33P J 50V
C1037	403 139 2202	ELECT 4.7U M 25V
C1038	403 001 1906	CERAMIC 0.01U M 16V
C1039	403 001 1906	CERAMIC 0.01U M 16V
C1040	403 073 6205	CERAMIC 470P J 50V
C1051	403 001 1906	CERAMIC 0.01U M 16V
C1058	403 030 6309	CERAMIC 68P J 50V
C1059	403 026 2209	CERAMIC 47P J 50V
C1060	403 135 4002	ELECT 47U M 6.3V
C1061	403 001 1906	CERAMIC 0.01U M 16V
C1063	403 022 7703	CERAMIC 33P J 50V
C1065	403 024 1501	CERAMIC 39P J 50V
C1101	403 003 2505	CERAMIC 0.022U J 25V
C1102	403 001 1906	CERAMIC 0.01U M 16V
C1103	403 109 6308	ELECT 1U M 50V
C1104	403 001 1906	CERAMIC 0.01U M 16V
C1105	403 109 6308	ELECT 1U M 50V
C1106	403 109 6308	ELECT 1U M 50V
C1107	403 003 2505	CERAMIC 0.022U J 25V
C1108	403 104 8505	CERAMIC 0.047U J 25V
C1109	403 001 1906	CERAMIC 0.01U M 16V
C1110	403 139 1809	ELECT 47U M 16V
C1111	403 001 1906	CERAMIC 0.01U M 16V
C1112	403 109 6308	ELECT 1U M 50V
C1113	403 104 8505	CERAMIC 0.047U J 25V
C1114	403 025 8608	CERAMIC 43P J 50V
C1115	403 150 1703	CERAMIC 91P J 50V
C1116	403 001 1906	CERAMIC 0.01U M 16V
C1117	403 135 4002	ELECT 47U M 6.3V
C1118	403 068 8801	CERAMIC 100P J 50V
C1119	403 001 1906	CERAMIC 0.01U M 16V
C1120	403 001 1906	CERAMIC 0.01U M 16V
C1121	403 001 1906	CERAMIC 0.01U M 16V
C1124	403 073 8407	CERAMIC 4700P K 50V
C1125	403 070 3702	CERAMIC 120P J 50V
C1126	403 001 1906	CERAMIC 0.01U M 16V
C1128	403 071 6207	CERAMIC 220P K 50V
C1201	403 074 8703	CERAMIC 680P J 50V (EXCEPT VHR-8500SP)
C1281	403 030 6309	CERAMIC 68P J 50V (EXCEPT VHR-8500SP)
OR	403 075 4001	CERAMIC 820P J 50V (VHR-8500SP)
C1301	403 003 3700	CERAMIC 0.022U Z 25V
C1351	403 022 7703	CERAMIC 33P J 50V
C1352	403 014 2600	CERAMIC 18P J 50V
C1401	403 139 2202	ELECT 4.7U M 25V
C1605	403 135 4101	ELECT 470U M 6.3V
C1608	403 162 1807	ELECT 22U M 10V
C1609	403 094 2408	OS-SOLID 4.7U M 16V
C1631	403 022 7703	CERAMIC 33P J 50V
C1632	403 024 1501	CERAMIC 39P J 50V
C1682	403 012 6006	CERAMIC 15P J 50V (EXCEPT VHR-8500SP)
C1691	403 074 8703	CERAMIC 680P J 50V
C1698	403 001 1906	CERAMIC 0.01U M 16V
C1699	403 001 1906	CERAMIC 0.01U M 16V

LOCATION	PARTS NO.	DESCRIPTION
D1001	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1002	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1031	407 070 8408	ZENER DIODE GZS9.1Y-TB
OR	407 053 8906	ZENER DIODE MTZ9.1C-T-77
D1301	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1302	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1303	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1304	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1399	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D1604	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D1651	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
DL131	613 116 7001	DELAY,2H
OR	613 117 4870	DELAY,2H
IC101	409 178 3309	IC LA7340
IC102	409 171 9209	IC LC8992
IC111	409 208 7208	IC LA7332
L1001	613 014 0951	COIL,INDUCTOR 68UHK
L1031	613 014 0944	COIL,INDUCTOR 56UHK
L1032	613 014 0913	COIL,INDUCTOR 33UHK
L1033	613 014 0739	COIL,INDUCTOR 1.0UHM
L1054	613 014 0876	COIL,INDUCTOR 15UHK
L1055	613 014 0876	COIL,INDUCTOR 15UHK
L1057	613 014 0821	COIL,INDUCTOR 5.6UHK
L1058	613 014 0937	COIL,INDUCTOR 47UHK
L1101	613 014 0883	COIL,INDUCTOR 18UHK
L1102	613 014 0791	COIL,INDUCTOR 3.3UHK
L1103	613 014 0876	COIL,INDUCTOR 15UHK
L1104	613 015 6327	COIL,INDUCTOR 1MHJ
L1105	613 014 0920	COIL,INDUCTOR 39UHK
L1631	613 014 0975	COIL,INDUCTOR 100UHK
L1681	613 014 0777	COIL,INDUCTOR 2.2UHM (EXCEPT VHR-8500SP)
L1691	613 014 0975	COIL,INDUCTOR 100UHK
Q1001	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1002	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1003	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1031	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1032	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q

LOCATION	PARTS NO.	DESCRIPTION
Q1032	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1052	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1054	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1055	405 012 9506	TR 2SC2058S-DCTP-Q
OR	405 015 2504	TR 2SC2669-O-TPE4
OR	405 015 2603	TR 2SC2669-Y-TPE4
OR	405 016 0905	TR 2SC2839-E-SPA-AC
OR	405 016 1100	TR 2SC2839-F-SPA-AC
Q1101	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1102	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1103	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1104	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1105	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1106	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1151	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1301	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q1302	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 093 0607	TR KSC2785-Y
Q1401	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1402	405 006 6504	TR 2SA984-E-AA
OR	405 006 6702	TR 2SA984-F-AA

LOCATION	PARTS NO.	DESCRIPTION
Q1403	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
Q1404	405 089 0109	TR 2SA1707-T-AN
OR	405 084 7905	TR 2SB1240-TV2-R
Q1601	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1806	TR 2SA933S-T93-R
Q1602	405 093 0508	TR KSA1175-Y
OR	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
Q1631	405 093 0607	TR KSC2785-Y
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 011 8500	TR 2SC1740S-DCTP-R
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 019 2807	TR 2SC536-F-SPA-AC
R1001	401 012 5609	CARBON 1K JA 1/4W
R1002	401 017 1705	CARBON 2.7K JA 1/4W
R1003	401 022 1806	CARBON 680 JA 1/4W
R1004	401 012 9201	CARBON 1M JA 1/4W
R1005	401 012 5609	CARBON 1K JA 1/4W
R1006	401 017 1705	CARBON 2.7K JA 1/4W
R1007	401 012 5609	CARBON 1K JA 1/4W
R1008	401 022 1806	CARBON 680 JA 1/4W
R1009	401 012 5609	CARBON 1K JA 1/4W
R1010	401 017 8506	CARBON 300 JA 1/4W
R1011	401 015 2605	CARBON 1.8K JA 1/4W
R1012	401 015 4609	CARBON 180K JA 1/4W
R1013	401 012 9201	CARBON 1M JA 1/4W
R1014	401 016 3700	CARBON 2.2K JA 1/4W
R1015	401 023 2703	CARBON 8.2K JA 1/4W
R1016	401 013 5202	CARBON 1.2K JA 1/4W
R1017	401 018 4804	CARBON 33K JA 1/4W
R1018	401 012 5609	CARBON 1K JA 1/4W
R1019	401 016 2505	CARBON 220 JA 1/4W
R1020	401 020 3802	CARBON 470K JA 1/4W
R1021	401 014 6000	CARBON 150K JA 1/4W
R1022	401 022 1806	CARBON 680 JA 1/4W
R1023	401 016 4707	CARBON 22K JA 1/4W
R1024	401 020 2805	CARBON 47K JA 1/4W
R1025	401 016 3700	CARBON 2.2K JA 1/4W
R1031	401 012 5609	CARBON 1K JA 1/4W
R1032	401 012 5609	CARBON 1K JA 1/4W
R1033	401 019 9501	CARBON 47 JA 1/4W
R1034	401 020 7404	CARBON 51 JA 1/4W
R1051	401 016 3700	CARBON 2.2K JA 1/4W
R1052	401 016 3700	CARBON 2.2K JA 1/4W
R1056	401 020 0702	CARBON 470 JA 1/4W
R1057	401 022 1806	CARBON 680 JA 1/4W
R1066	401 023 1607	CARBON 820 JA 1/4W
R1067	401 012 5609	CARBON 1K JA 1/4W
R1068	401 022 7105	CARBON 750 JA 1/4W
R1069	401 016 2505	CARBON 220 JA 1/4W
R1070	401 012 5609	CARBON 1K JA 1/4W
R1071	401 012 5609	CARBON 1K JA 1/4W
R1072	401 020 0702	CARBON 470 JA 1/4W
R1101	401 020 2805	CARBON 47K JA 1/4W
R1102	401 016 4707	CARBON 22K JA 1/4W
R1103	401 012 5609	CARBON 1K JA 1/4W
R1104	401 013 5202	CARBON 1.2K JA 1/4W
R1105	401 018 2701	CARBON 330 JA 1/4W
R1106	401 021 1807	CARBON 560 JA 1/4W
R1107	401 012 5609	CARBON 1K JA 1/4W
R1108	401 012 5609	CARBON 1K JA 1/4W
R1109	401 012 6903	CARBON 10K JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R1110	401 023 2703	CARBON 8.2K JA 1/4W
R1111	401 012 5609	CARBON 1K JA 1/4W
R1112	401 015 2605	CARBON 1.8K JA 1/4W
R1113	401 012 8006	CARBON 100K JA 1/4W
R1114	401 019 0904	CARBON 390 JA 1/4W
R1115	401 012 5609	CARBON 1K JA 1/4W
R1116	401 012 5609	CARBON 1K JA 1/4W
R1117	401 014 4006	CARBON 1.5K JA 1/4W
R1118	401 022 7105	CARBON 750 JA 1/4W
R1119	401 012 5609	CARBON 1K JA 1/4W
R1120	401 012 4404	CARBON 100 JA 1/4W
R1121	401 012 5609	CARBON 1K JA 1/4W
R1122	401 020 0702	CARBON 470 JA 1/4W
R1123	401 014 4006	CARBON 1.5K JA 1/4W
R1124	401 015 8805	CARBON 200 JA 1/4W
R1125	401 022 1806	CARBON 680 JA 1/4W
R1126	401 012 5609	CARBON 1K JA 1/4W
R1127	401 014 2804	CARBON 150 JA 1/4W
R1128	401 012 5609	CARBON 1K JA 1/4W
R1152	401 019 1802	CARBON 3.9K JA 1/4W
R1301	401 012 6903	CARBON 10K JA 1/4W
R1302	401 012 5609	CARBON 1K JA 1/4W
R1303	401 012 5609	CARBON 1K JA 1/4W
R1304	401 020 2805	CARBON 47K JA 1/4W
R1305	401 016 4707	CARBON 22K JA 1/4W
R1306	401 015 4609	CARBON 180K JA 1/4W
R1351	401 021 1807	CARBON 560 JA 1/4W
R1352	401 023 2703	CARBON 8.2K JA 1/4W
R1401	401 016 4707	CARBON 22K JA 1/4W
R1402	401 016 4707	CARBON 22K JA 1/4W
R1403	401 023 2703	CARBON 8.2K JA 1/4W
R1404	401 020 1907	CARBON 4.7K JA 1/4W
R1405	401 020 2805	CARBON 47K JA 1/4W
R1406	401 020 2805	CARBON 47K JA 1/4W
R1407	401 015 2605	CARBON 1.8K JA 1/4W
R1408	401 016 2505	CARBON 220 JA 1/4W
R1603	401 012 6903	CARBON 10K JA 1/4W
R1607	401 021 1807	CARBON 560 JA 1/4W
R1608	401 022 6702	CARBON 75 JA 1/4W
R1609	401 013 9408	CARBON 1.3K JA 1/4W
R1610	401 021 1807	CARBON 560 JA 1/4W
R1631	401 021 2903	CARBON 5.6K JA 1/4W
R1632	401 012 5609	CARBON 1K JA 1/4W
R1633	401 023 1607	CARBON 820 JA 1/4W
R1634	401 015 2605	CARBON 1.8K JA 1/4W
R1641	401 015 2605	CARBON 1.8K JA 1/4W
VR101	613 001 9370	SEMI VR 1KB
OR	613 001 8977	SEMI VR 1KB
VR102	613 001 9035	SEMI VR 10KB
OR	613 001 9417	SEMI VR 10KB
VR103	613 001 9424	SEMI VR 20KB
OR	613 001 9059	SEMI VR 22KB
VR104	613 001 9035	SEMI VR 10KB
OR	613 001 9417	SEMI VR 10KB
VR105	613 001 8977	SEMI VR 1KB
OR	613 001 9370	SEMI VR 1KB
X1101	613 080 9407	OSC.CRYSTAL 4.43MHZ
OR	613 093 8008	OSC.CRYSTAL 4.433619MHZ
XF101	613 004 5539	LC PACK 4MHZ LPF
XF111	613 111 3800	FILTER.5.06 4.43M B.1M L

AUDIO CIRCUIT(AD-A)

LOCATION	PARTS NO.	DESCRIPTION
B2101	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP

LOCATION	PARTS NO.	DESCRIPTION
C2001	403 049 1401	ELECT 1U M 50V
C2002	403 075 4506	CERAMIC 820P K 50V
C2004	403 135 3708	ELECT 33U M 6.3V
C2005	403 003 0600	CERAMIC 0.018U K 25V
C2006	403 130 2904	ELECT 0.47U M 50V
C2007	403 072 4707	CERAMIC 270P K 50V (VHR-7540G ONLY)
C2008	403 001 6505	CERAMIC 3300P K 16V
C2009	403 135 4002	ELECT 47U M 6.3V
C2010	403 107 9905	ELECT 10U M 16V
C2013	403 003 2406	CERAMIC 0.022U J 25V
C2016	403 109 6308	ELECT 1U M 50V
C2017	403 134 5901	ELECT 33U M 16V
C2018	403 121 3002	ELECT 4.7U M 25V
C2019	403 134 9602	ELECT 47U M 16V
C2020	403 071 6207	CERAMIC 220P K 50V
C2021	403 081 7409	POLYPRO 0.033U J 100V
C2022	403 002 1905	CERAMIC 0.01U K 25V
C2024	403 002 1905	CERAMIC 0.01U K 25V
C2025	403 003 3700	CERAMIC 0.022U Z 25V
C2051	403 069 1207	CERAMIC 1000P K 50V
C2071	403 075 4506	CERAMIC 820P K 50V
C2072	403 109 6308	ELECT 1U M 50V
C2073	403 003 8606	CERAMIC 0.039U J 25V
D2101	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D2102	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
IC201	409 133 1401	IC LA7294
L2001	613 015 5474	HF CHOKE 27MH(VHR-7540G ONLY)
L2002	613 014 3037	COIL,INDUCTOR 10MHJ
L2003	613 014 2870	COIL,INDUCTOR 560UHK
Q2001	405 024 9709	TR 2SD734-E-AA
OR	405 024 9907	TR 2SD734-F-AA
Q2101	405 033 6706	TR 2SD1468S-DCTP-R
OR	405 033 6805	TR 2SD1468S-DCTP-S
Q2102	405 033 6706	TR 2SD1468S-DCTP-R
OR	405 033 6805	TR 2SD1468S-DCTP-S
R2001	401 012 4404	CARBON 100 JA 1/4W
R2002	401 022 3008	CARBON 6.8K JA 1/4W
R2003	401 023 0600	CARBON 82 JA 1/4W
R2004	401 019 3905	CARBON 390K JA 1/4W
R2005	401 021 8905	CARBON 6.2K JA 1/4W
R2006	401 017 1705	CARBON 2.7K JA 1/4W
R2009	401 018 6501	CARBON 3.3M JA 1/4W
R2010	401 012 6903	CARBON 10K JA 1/4W
R2011	401 016 0006	CARBON 20K JA 1/4W
R2012	401 022 7600	CARBON 7.5K JA 1/4W
R2013	401 012 5609	CARBON 1K JA 1/4W
R2014	401 015 2605	CARBON 1.8K JA 1/4W
R2016	401 012 6903	CARBON 10K JA 1/4W
R2017	401 012 6903	CARBON 10K JA 1/4W
R2018	401 015 3701	CARBON 18K JA 1/4W
R2019	401 015 3701	CARBON 18K JA 1/4W
R2021	401 012 3308	CARBON 10 JA 1/4W
R2022	401 019 9501	CARBON 47 JA 1/4W
R2023	401 014 5102	CARBON 15K JA 1/4W
R2024	401 019 6104	CARBON 4.7 JA 1/4W
R2051	401 012 5609	CARBON 1K JA 1/4W
R2071	401 013 4106	CARBON 120 JA 1/4W
R2072	401 012 6903	CARBON 10K JA 1/4W
R2101	401 020 2805	CARBON 47K JA 1/4W
R2102	401 019 2908	CARBON 39K JA 1/4W
R2103	401 020 2805	CARBON 47K JA 1/4W
R2104	401 015 3701	CARBON 18K JA 1/4W
R2109	401 012 5609	CARBON 1K JA 1/4W
R2110	401 023 1607	CARBON 820 JA 1/4W
R2111	401 012 6903	CARBON 10K JA 1/4W
R2112	401 012 6903	CARBON 10K JA 1/4W
R2113	401 012 6903	CARBON 10K JA 1/4W
R2114	401 016 3700	CARBON 2.2K JA 1/4W
R2115	401 016 3700	CARBON 2.2K JA 1/4W
T2001	613 016 2205	OSC COIL 70KHZ
OR	613 094 3378	TRANS,OSC 70KHZ
VR201	613 001 9097	SEMI VR 100KB
VR202	613 001 9035	SEMI VR 10KB

SYSTEM CONTROL CIRCUIT(SY-A)

LOCATION	PARTS NO.	DESCRIPTION
B3001	405 018 2808	TR 2SC3402-AC
C3001	403 155 2804	DL-ELECT 0.047F Z 5.5V
C3002	403 135 3500	ELECT 220U M 6.3V
C3003	403 121 9509	CERAMIC 0.1U Z 50V
D3002	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3003	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
IC301	410 095 5703	IC UPD75516GF-117-3B9
R3001	402 036 4401	FUSIBLE RES 3.3 JA 1/2W
OR	402 036 3701	FUSIBLE RES 3.3 JA 1/2W
R3002	401 020 1907	CARBON 4.7K JA 1/4W
R3003	401 020 1907	CARBON 4.7K JA 1/4W
R3004	401 012 6903	CARBON 10K JA 1/4W
R3005	401 014 4006	CARBON 1.5K JA 1/4W
R3006	401 014 4006	CARBON 1.5K JA 1/4W
R3007	401 019 1802	CARBON 3.9K JA 1/4W
R3008	401 020 1907	CARBON 4.7K JA 1/4W
R3009	401 016 5704	CARBON 220K JA 1/4W
R3010	401 016 5704	CARBON 220K JA 1/4W
R3011	401 012 5609	CARBON 1K JA 1/4W
R3012	401 012 5609	CARBON 1K JA 1/4W
R3013	401 016 5704	CARBON 220K JA 1/4W
R3014	401 012 5609	CARBON 1K JA 1/4W
R3015	401 016 5704	CARBON 220K JA 1/4W
R3016	401 012 6903	CARBON 10K JA 1/4W
R3017	401 020 1907	CARBON 4.7K JA 1/4W
R3018	401 016 5704	CARBON 220K JA 1/4W
R3019	401 012 6903	CARBON 10K JA 1/4W
R3020	401 020 1907	CARBON 4.7K JA 1/4W
R3022	401 016 5704	CARBON 220K JA 1/4W
R3024	401 023 4509	CARBON 820K JA 1/4W
R3202	401 020 1907	CARBON 4.7K JA 1/4W
R3203	401 020 1907	CARBON 4.7K JA 1/4W
R3206	401 016 0006	CARBON 20K JA 1/4W
R3207	401 017 1705	CARBON 2.7K JA 1/4W
R3209	401 020 1907	CARBON 4.7K JA 1/4W
XF301	613 097 9698	RESONATOR,CERAMIC 4.0MHZ
OR	613 108 2496	RESONATOR,CERAMIC 4.0MHZ

SERVO CIRCUIT(SV-A)

LOCATION	PARTS NO.	DESCRIPTION
B3501	405 003 7603	TR 2SA1345-AC
OR	405 000 2205	TR DTA144ES-DCTP
B3502	405 003 7603	TR 2SA1345-AC
OR	405 000 2205	TR DTA144ES-DCTP
B3503	405 018 2501	TR 2SC3399-AC

LOCATION	PARTS NO.	DESCRIPTION
B3503	405 000 6104	TR DTC144ES-DCTP
B3506	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B3507	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B3512	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
B3514	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
C3501	403 057 6801	POLYESTER 0.012U J 50V
C3502	403 135 4002	ELECT 47U M 6.3V
C3503	403 121 9509	CERAMIC 0.1U Z 50V
C3504	403 071 6207	CERAMIC 220P K 50V
C3505	403 061 7306	POLYESTER 4700P J 50V
C3506	403 059 6502	POLYESTER 0.022U K 50V
C3507	403 002 8508	CERAMIC 0.015U K 25V
C3508	403 001 8806	CERAMIC 6800P K 16V
C3509	403 002 8508	CERAMIC 0.015U K 25V
C3510	403 145 8601	ELECT 22U M 16V
OR	403 042 8803	ELECT 22U M 16V
C3511	403 145 8601	ELECT 22U M 16V
OR	403 042 8803	ELECT 22U M 16V
C3512	403 063 0008	POLYESTER 6800P K 50V
C3513	403 168 6103	MT-POLYEST 0.1U J 50V
C3514	403 001 5003	CERAMIC 2200P K 16V
C3515	403 001 3801	CERAMIC 1500P K 16V
C3516	403 001 8806	CERAMIC 6800P K 16V
C3517	403 145 8601	ELECT 22U M 16V
OR	403 042 8803	ELECT 22U M 16V
C3518	403 145 8601	ELECT 22U M 16V
OR	403 042 8803	ELECT 22U M 16V
C3519	403 175 0903	MT-POLYEST 0.12U J 50V
C3520	403 135 4002	ELECT 47U M 6.3V
C3525	403 069 1207	CERAMIC 1000P K 50V
C3526	403 108 0000	ELECT 0.22U M 50V
C3527	403 001 1609	CERAMIC 0.01U K 16V
C3528	403 109 6308	ELECT 1U M 50V
C3529	403 004 4607	CERAMIC 0.068U K 25V
C3530	403 107 9905	ELECT 10U M 16V
C3531	403 135 7805	ELECT 3.3U M 50V
C3532	403 074 9205	CERAMIC 680P K 50V
C3533	403 069 1207	CERAMIC 1000P K 50V
C3534	403 159 0806	NP-ELECT 33U M 6.3V
C3535	403 069 1207	CERAMIC 1000P K 50V
C3536	403 061 3308	POLYESTER 0.039U J 50V
C3537	403 135 4002	ELECT 47U M 6.3V
C3540	403 063 7700	POLYESTER 0.082U K 50V
C3541	403 070 4105	CERAMIC 120P K 50V
C3550	403 121 9509	CERAMIC 0.1U Z 50V
C3551	403 168 6103	MT-POLYEST 0.1U J 50V
C3552	403 168 6103	MT-POLYEST 0.1U J 50V
C3553	403 168 6103	MT-POLYEST 0.1U J 50V
C3554	403 062 0405	POLYESTER 0.047U K 50V
C3555	403 001 1609	CERAMIC 0.01U K 16V
C3556	403 086 2607	NP-ELECT 1U M 50V
C3557	403 001 1609	CERAMIC 0.01U K 16V
C3558	403 086 2607	NP-ELECT 1U M 50V
C3559	403 057 5101	POLYESTER 1200P J 50V
D3501	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3502	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3503	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3504	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D3506	407 012 4406	DIODE 1SS133-T-77

LOCATION	PARTS NO.	DESCRIPTION
D3506	407 007 9904	DIODE GMA01-BT
D3509	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3512	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3513	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3517	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3518	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3519	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3520	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3527	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3528	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3529	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3530	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3534	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3535	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3536	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3539	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3540	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3541	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3542	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D3543	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
IC351	409 180 3601	IC LC7418-8086
IC352	409 159 8606	IC LA7122S
OR	409 178 3200	IC LA7124
Q3501	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 093 0607	TR KSC2785-Y
Q3503	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 093 0607	TR KSC2785-Y
Q3505	405 019 2005	TR 2SC536-E-SPA-AC
OR	405 011 8401	TR 2SC1740S-DCTP-Q
OR	405 093 0607	TR KSC2785-Y
R3503	401 016 4707	CARBON 22K JA 1/4W
R3504	401 016 4707	CARBON 22K JA 1/4W
R3505	401 016 5704	CARBON 220K JA 1/4W
R3509	401 015 3701	CARBON 18K JA 1/4W
R3510	401 018 4804	CARBON 33K JA 1/4W
R3511	401 012 6903	CARBON 10K JA 1/4W
R3512	401 012 8006	CARBON 100K JA 1/4W
R3513	401 012 8006	CARBON 100K JA 1/4W
R3514	401 018 5702	CARBON 330K JA 1/4W
R3515	401 014 5102	CARBON 15K JA 1/4W
R3516	401 014 6000	CARBON 150K JA 1/4W
R3517	401 014 6000	CARBON 150K JA 1/4W
R3518	401 012 6903	CARBON 10K JA 1/4W
R3519	401 020 2805	CARBON 47K JA 1/4W
R3520	401 020 2805	CARBON 47K JA 1/4W

LOCATION	PARTS NO.	DESCRIPTION
R3521	401 018 5702	CARBON 330K JA 1/4W
R3522	401 014 6000	CARBON 150K JA 1/4W
R3523	401 017 2702	CARBON 27K JA 1/4W
R3527	401 014 6000	CARBON 150K JA 1/4W
R3528	401 012 8006	CARBON 100K JA 1/4W
R3529	401 012 6903	CARBON 10K JA 1/4W
R3534	401 016 3700	CARBON 2.2K JA 1/4W
R3535	401 016 3700	CARBON 2.2K JA 1/4W
R3538	401 012 5609	CARBON 1K JA 1/4W
R3539	401 021 9902	CARBON 620K JA 1/4W
R3540	401 014 6000	CARBON 150K JA 1/4W
R3541	401 018 7508	CARBON 360 JA 1/4W
R3542	401 020 7800	CARBON 510 JA 1/4W
R3543	401 020 7800	CARBON 510 JA 1/4W
R3548	401 012 6903	CARBON 10K JA 1/4W
R3549	401 012 8006	CARBON 100K JA 1/4W
R3550	401 012 6903	CARBON 10K JA 1/4W
R3551	401 013 7206	CARBON 120K JA 1/4W
R3552	401 017 3709	CARBON 270K JA 1/4W
R3553	401 015 4609	CARBON 180K JA 1/4W
R3554	401 012 6903	CARBON 10K JA 1/4W
R3555	401 018 5702	CARBON 330K JA 1/4W
R3560	401 012 5609	CARBON 1K JA 1/4W
R3561	401 015 2605	CARBON 1.8K JA 1/4W
R3563	401 012 5609	CARBON 1K JA 1/4W
R3564	401 012 5609	CARBON 1K JA 1/4W
R3565	401 022 8508	CARBON 750K JA 1/4W
R3566	401 012 8006	CARBON 100K JA 1/4W
R3571	401 012 8006	CARBON 100K JA 1/4W
R3572	401 012 6903	CARBON 10K JA 1/4W
R3575	401 012 6903	CARBON 10K JA 1/4W
R3576	401 023 4509	CARBON 820K JA 1/4W
R3580	401 018 5702	CARBON 330K JA 1/4W
R3581	401 023 7807	CARBON 91K JA 1/4W
R3584	401 012 6903	CARBON 10K JA 1/4W
R3585	401 015 4609	CARBON 180K JA 1/4W
R3590	401 013 6308	CARBON 12K JA 1/4W
R3593	401 018 5702	CARBON 330K JA 1/4W
R3594	401 012 5609	CARBON 1K JA 1/4W
R3595	401 012 5609	CARBON 1K JA 1/4W
VR351	613 001 9110	SEMI VR 220KB
OR	613 097 7953	VR,SEMI 220KB
VR353	613 001 9486	SEMI VR 500KB
OR	613 112 4936	VR,SEMI 500KB
VR354	613 001 9486	SEMI VR 500KB
OR	613 112 4936	VR,SEMI 500KB

POWER SUPPLY CIRCUIT(PW-A)

LOCATION	PARTS NO.	DESCRIPTION
C5401	403 001 1609	CERAMIC 0.01U K 16V (VHR-7540G ONLY)
C5402	403 135 4002	ELECT 47U M 6.3V
D5401	407 007 9904	DIODE GMA01-BT(VHR-7540G ONLY)
OR	407 012 4406	DIODE 1SS133-T-77(VHR-7540G ONLY)
D5402	407 099 5204	ZENER DIODE MTZJ5.1B-T-77 (VHR-7540G ONLY)
D5403	407 053 3109	ZENER DIODE MTZ12A-T-77 (EXCEPT VHR-7540G)
OR	407 099 5709	ZENER DIODE MTZ6.8C-T-77(VHR-7540G)
D5404	407 078 2705	DIODE 1SS244-T-77
D5405	407 078 1104	ZENER DIODE MTZ33A-T-77
D5406	407 053 2706	ZENER DIODE MTZ10C-T-77
D5411	407 004 9709	DIODE DSK10C-BT(VHR-7540G ONLY)
OR	407 005 8701	DIODE ERA15-02-V5(VHR-7540G ONLY)
D5412	407 004 9709	DIODE DSK10C-BT(VHR-7540G ONLY)
OR	407 005 8701	DIODE ERA15-02-V5(VHR-7540G ONLY)
D5413	407 004 9709	DIODE DSK10C-BT(VHR-7540G ONLY)

LOCATION	PARTS NO.	DESCRIPTION
D5413	407 005 8701	DIODE ERA15-02-V5(VHR-7540G ONLY)
L5401	613 015 2695	HF CHOKE 56UH K(VHR-7540G ONLY)
Q5401	405 088 9103	TR 2SA1703-S-AN
Q5402	405 089 2103	TR 2SC4483-S-AN(EXCEPT VHR-7540G)
OR	405 089 2400	TR 2SC4484-S-AN(VHR-7540G)
Q5403	405 006 7006	TR 2SA984K-E-AA
OR	405 006 7204	TR 2SA984K-F-AA
Q5404	405 006 7006	TR 2SA984K-E-AA
OR	405 006 7204	TR 2SA984K-F-AA
Q5405	405 089 2103	TR 2SC4483-S-AN(VHR-7540G ONLY)
R5401	401 021 8905	CARBON 6.2K JA 1/4W
R5402	401 016 3700	CARBON 2.2K JA 1/4W
R5403	401 012 5609	CARBON 1K JA 1/4W
R5404 ⚠	402 042 1807	FUSIBLE RES 1.5K JA 1/4W (VHR-7500G,7530G,8500SP)
OR ⚠	402 041 6209	FUSIBLE RES 820 JA 1/4W (VHR-7540G,7500EX)
R5405	401 021 2903	CARBON 5.6K JA 1/4W (EXCEPT VHR-7500EX)
OR	401 018 3708	CARBON 3.3K JA 1/4W (VHR-7500EX)
R5406	401 014 5102	CARBON 15K JA 1/4W
R5407	401 019 7705	CARBON 4.3K JA 1/4W
R5408 ⚠	402 004 1906	FUSIBLE RES 47 JA 1/4W
R5409	401 013 6308	CARBON 12K JA 1/4W
R5410	401 014 2804	CARBON 150 JA 1/4W
R5411	401 014 2804	CARBON 150 JA 1/4W
R5412	401 015 3701	CARBON 18K JA 1/4W (VHR-7540G ONLY)
R5413	401 012 6903	CARBON 1K JA 1/4W (VHR-7540G ONLY)

TUNER CIRCUIT(TN-A)

LOCATION	PARTS NO.	DESCRIPTION
B6001	405 000 6104	TR DTC144ES-DCTP(VHR-7500EX ONLY)
OR	405 018 2501	TR 2SC3399-AC(VHR-7500EX ONLY)
B6002	405 003 7603	TR 2SA1345-AC
OR	405 000 2205	TR DTA144ES-DCTP
OR	405 063 9104	TR DTA144EL-TL2
B6003	405 018 2501	TR 2SC3399-AC(EXCEPT VHR-7540G)
OR	405 000 6104	TR DTC144ES-DCTP(EXCEPT VHR-7540G)
C6001	403 002 4708	CERAMIC 0.1U Z 25V (VHR-7500EX ONLY)
C6002	403 121 3002	ELECT 4.7U M 25V (VHR-7500EX ONLY)
C6003	403 109 6308	ELECT 1U M 50V (VHR-7500EX ONLY)
C6004	403 168 6103	MT-POLYEST 0.1U J 50V (VHR-7500EX ONLY)
OR	403 065 8002	MT-POLYEST 0.1U J 63V (VHR-7500EX ONLY)
OR	403 067 5603	MT-COMPO 0.1U J 50V (VHR-7500EX ONLY)
C6005	403 121 3002	ELECT 4.7U M 25V (VHR-7500EX ONLY)
C6006	403 125 5606	ELECT 100U M 16V
C6007	403 143 2809	CERAMIC 0.047U Z 50V (VHR-7500EX ONLY)
C6008	403 109 6308	ELECT 1U M 50V (EXCEPT VHR-7540G)
C6009	403 135 7409	ELECT 22U M 50V
C6010	403 121 9509	CERAMIC 0.1U Z 50V
IC601	409 026 8203	IC L5631
OR	409 057 5103	IC UPC574J

LOCATION	PARTS NO.	DESCRIPTION
IC602	409 148 5005	IC M6M80021P
OR	409 199 5306	IC M6M80011AP(VHR-5300EX ONLY)
Q6001	405 040 0605	TR 2SK222-C(VHR-7500EX ONLY)
OR	405 026 9004	TR 2SK222-D(VHR-7500EX ONLY)
OR	405 027 8709	TR 2SK68A-K(VHR-7500EX ONLY)
OR	405 057 9301	TR 2SK68A-L1(VHR-7500EX ONLY)
Q6002	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
Q6003	405 019 2005	TR 2SC536-E-SPA-AC (EXCEPT VHR-7540G)
OR	405 019 2807	TR 2SC536-F-SPA-AC (EXCEPT VHR-7540G)
OR	405 093 0607	TR KSC2785-Y(EXCEPT VHR-7540G)
R6001	401 018 2701	CARBON 330 JA 1/4W
R6002	401 019 0904	CARBON 390 JA 1/4W
R6003	401 012 9201	CARBON 1M JA 1/4W (VHR-7500EX ONLY)
R6004	401 019 3905	CARBON 390K JA 1/4W (VHR-7500EX ONLY)
R6005	401 020 3802	CARBON 470K JA 1/4W (VHR-7500EX ONLY)
R6006	401 019 3905	CARBON 390K JA 1/4W
R6007	401 016 8705	CARBON 240K JA 1/4W
R6008	401 012 5609	CARBON 1K JA 1/4W
R6009	401 012 6903	CARBON 10K JA 1/4W (VHR-7500EX ONLY)
R6010	401 012 6903	CARBON 10K JA 1/4W (EXCEPT VHR-7540G)
R6014	401 015 9406	CARBON 2K JA 1/4W (VHR-7500G,7450G,7530G)
R6015	401 012 6903	CARBON 10K JA 1/4W (EXCEPT VHR-7540G)

RF CONVERTER CIRCUIT(CV-A)

LOCATION	PARTS NO.	DESCRIPTION
C6601	403 134 8100	ELECT 100U M 6.3V
L6601	613 015 6631	COIL,INDUCTOR 15UHK
OR	613 014 8667	HF CHOKE 15UH K
L6602	613 015 6631	COIL,INDUCTOR 15UHK
OR	613 014 8667	HF CHOKE 15UH K

COMPL,VD-1

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	613 108 4186	(EXCEPT VHR-8500SP)
B1701	405 029 3504	TR DTC144EK-T96
OR	405 018 1900	TR 2SC3395-TB
C1701	403 069 5601	CERAMIC 0.01U K 50V
C1702	403 009 5807	CERAMIC 100P J 50V
C1703	403 189 2405	ELECT 10U M 16V
C1704	403 068 0409	CERAMIC 0.1U Z 25V
C1705	403 189 2405	ELECT 10U M 16V
C1706	403 069 5601	CERAMIC 0.01U K 50V
D1701	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
IC171	409 003 4907	IC BA7025L
J1701	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
Q1701	405 014 4400	TR 2SC2412K-T96-Q
OR	405 014 4509	TR 2SC2412K-T96-R
Q1701	405 014 4608	TR 2SC2412K-T96-S
OR	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
R1701	401 038 0800	MT-GLAZE 22K JA 1/10W
R1702	401 037 5608	MT-GLAZE 10K JA 1/10W
R1703	401 038 7700	MT-GLAZE 5.6K JA 1/10W
R1704	401 037 5400	MT-GLAZE 1K JA 1/10W
R1705	401 038 0800	MT-GLAZE 22K JA 1/10W
R1706	401 037 5400	MT-GLAZE 1K JA 1/10W
R1707	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R1708	401 037 8104	MT-GLAZE 150K JA 1/10W
R1709	401 038 5805	MT-GLAZE 430 JA 1/10W
R1710	401 038 0800	MT-GLAZE 22K JA 1/10W
R1711	401 037 5608	MT-GLAZE 10K JA 1/10W
XF171	613 084 1681	FILTER 4.16MHZ B.F
XF172	613 015 8604	CHOKE COIL

COMPL,VP-1

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	613 110 9681	
B1801	405 063 9708	TR DTC144EL-TL2
B1891	405 000 6104	TR DTC144ES-DCTP
OR	405 018 2501	TR 2SC3399-AC
B1892	405 063 9708	TR DTC144EL-TL2
C1801	403 003 1805	CERAMIC 2200P M 25V
C1802	403 003 7104	CERAMIC 0.033U M 25V
C1803	403 003 7104	CERAMIC 0.033U M 25V
C1804	403 003 1805	CERAMIC 2200P M 25V
C1805	403 003 1805	CERAMIC 2200P M 25V
C1806	403 003 7104	CERAMIC 0.033U M 25V
C1807	403 022 7703	CERAMIC 33P J 50V
C1808	403 003 7104	CERAMIC 0.033U M 25V
C1809	403 003 1805	CERAMIC 2200P M 25V
C1810	403 022 7703	CERAMIC 33P J 50V
C1811	403 191 8709	ELECT 1U M 50V
C1812	403 003 7104	CERAMIC 0.033U M 25V
C1813	403 003 7104	CERAMIC 0.033U M 25V
C1814	403 163 7907	ELECT 47U M 6.3V
C1815	403 001 1906	CERAMIC 0.01U M 16V
C1816	403 069 0309	CERAMIC 1000P J 50V
C1817	403 163 7907	ELECT 47U M 6.3V
C1818	403 001 1906	CERAMIC 0.01U M 16V
C1819	403 001 1906	CERAMIC 0.01U M 16V
C1820	403 001 1906	CERAMIC 0.01U M 16V
C1821	403 001 1906	CERAMIC 0.01U M 16V
C1822	403 001 1906	CERAMIC 0.01U M 16V
C1823	403 072 7500	CERAMIC 330P J 50V
C1824	403 073 2702	CERAMIC 390P J 50V
C1825	403 003 7104	CERAMIC 0.033U M 25V
C1826	403 193 7809	ELECT 100U M 16V
C1827	403 003 3700	CERAMIC 0.022U Z 25V
C1861	403 012 6006	CERAMIC 15P J 50V
C1862	403 028 3402	CERAMIC 56P J 50V
C1863	403 026 2209	CERAMIC 47P J 50V
C1864	403 075 3103	CERAMIC 82P J 50V
C1891	403 012 6006	CERAMIC 15P J 50V
C1892	403 191 8709	ELECT 1U M 50V
C1893	403 069 0309	CERAMIC 1000P J 50V
C1894	403 001 1906	CERAMIC 0.01U M 16V
IC181	409 161 9806	IC LA7321
L1801	613 015 6730	COIL,INDUCTOR 100UHK
L1802	613 015 6730	COIL,INDUCTOR 100UHK
L1803	613 014 0838	COIL,INDUCTOR 6.8UHK
L1804	613 014 0890	COIL,INDUCTOR 22UHK

LOCATION	PARTS NO.	DESCRIPTION
L1805	613 014 0968	COIL,INDUCTOR 82UHK
L1806	613 015 6716	COIL,INDUCTOR 68UHK
Q1801	405 057 6201	TR 2SC4038-Q-TL2
OR	405 057 6409	TR 2SC4038-R-TL2
Q1802	405 082 7204	TR 2SC4039 TL2 Q
R1801	401 021 7007	CARBON 6.8 JA 1/4W
R1802	401 016 1409	CARBON 22 JA 1/4W
R1803	401 013 4106	CARBON 120 JA 1/4W
R1804	401 015 2605	CARBON 1.8K JA 1/4W
R1805	401 012 4404	CARBON 100 JA 1/4W
R1809	401 020 0702	CARBON 470 JA 1/4W
R1810	401 021 1807	CARBON 560 JA 1/4W
R1811	401 020 0702	CARBON 470 JA 1/4W
R1841	401 014 4006	CARBON 1.5K JA 1/4W
R1842	401 014 4006	CARBON 1.5K JA 1/4W
R1843	401 012 5609	CARBON 1K JA 1/4W
R1860	401 016 2505	CARBON 220 JA 1/4W
R1862	401 017 0708	CARBON 270 JA 1/4W
R1891	401 016 1409	CARBON 22 JA 1/4W
R1892	401 012 6903	CARBON 10K JA 1/4W
R1893	401 020 1907	CARBON 4.7K JA 1/4W
R1894	401 018 3708	CARBON 3.3K JA 1/4W
VR181	613 002 0345	SEMI VR 1KB
VR182	613 002 0345	SEMI VR 1KB

COMPL,SY-7

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	613 109 4550	
B3102	405 018 2402	TR 2SC3398-TB
B3104	405 018 2402	TR 2SC3398-TB
C3102	403 191 8808	ELECT 2.2U M 50V
C3103	403 068 0409	CERAMIC 0.1U Z 25V
C3104	403 069 5601	CERAMIC 0.01U K 50V
C3105	403 167 6500	ELECT 33U M 6.3V
C3106	403 068 0409	CERAMIC 0.1U Z 25V
C3108	403 163 7907	ELECT 47U M 6.3V
C3109	403 069 5601	CERAMIC 0.01U K 50V
C3110	403 013 3004	CERAMIC 150P J 50V
C3111	403 069 5601	CERAMIC 0.01U K 50V
C3112	403 069 5601	CERAMIC 0.01U K 50V
C3113	403 069 5601	CERAMIC 0.01U K 50V
C3114	403 069 5601	CERAMIC 0.01U K 50V
C3115	403 155 9407	NP-ELECT 10U M 25V
C3116	403 069 1702	CERAMIC 1000P K 50V
C3117	403 069 5601	CERAMIC 0.01U K 50V
C3118	403 069 5601	CERAMIC 0.01U K 50V
D3101	407 063 9504	ZENER DIODE MTZJ8.2B-T-77
D3102	407 099 5303	ZENER DIODE MTZJ5.6B-T-77
D3103	407 003 3609	DIODE DAN202K-T-96
D3104	407 003 3609	DIODE DAN202K-T-96
IC311	409 168 2503	IC BA10393F
IC312	409 114 4803	IC LB1641
IC313	409 032 3704	IC MN1280-R
OR	409 032 3803	IC MN1280-S
L3101	613 014 1118	COIL,INDUCTOR 18UHJ
Q3101	405 015 9909	TR 2SC2814-F5-TB
OR	405 035 6100	TR 2SC2413K-T96-Q
Q3102	405 015 8902	TR 2SC2812-L7-TB
OR	405 014 4608	TR 2SC2412K-T96-S
Q3103	405 015 8902	TR 2SC2812-L7-TB
OR	405 014 4608	TR 2SC2412K-T96-S
R3101	401 037 5608	MT-GLAZE 10K JA 1/10W
R3102	401 037 8104	MT-GLAZE 150K JA 1/10W
R3103	401 038 0206	MT-GLAZE 20K JA 1/10W
R3104	401 038 0800	MT-GLAZE 22K JA 1/10W
R3105	401 038 7809	MT-GLAZE 56K JA 1/10W
R3106	401 039 0601	MT-GLAZE 820K JA 1/10W
R3107	401 038 2309	MT-GLAZE 270K JA 1/10W
R3108	401 038 2200	MT-GLAZE 27K JA 1/10W
R3109	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R3110	401 038 3702	MT-GLAZE 33K JA 1/10W
R3111	401 038 0800	MT-GLAZE 22K JA 1/10W
R3112	401 037 5608	MT-GLAZE 10K JA 1/10W
R3113	401 038 0800	MT-GLAZE 22K JA 1/10W
R3114	401 037 5608	MT-GLAZE 10K JA 1/10W
R3115	401 037 5608	MT-GLAZE 10K JA 1/10W
R3116	401 037 5608	MT-GLAZE 10K JA 1/10W
R3117	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R3118	401 038 9605	MT-GLAZE 750 JA 1/10W
R3123	401 039 0403	MT-GLAZE 8.2K JA 1/10W
R3124	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R3125	401 037 5400	MT-GLAZE 1K JA 1/10W
R3126	401 038 3504	MT-GLAZE 330 JA 1/10W
R3127	401 038 0602	MT-GLAZE 220 JA 1/10W
R3128	401 038 0602	MT-GLAZE 220 JA 1/10W
R3129	401 038 0909	MT-GLAZE 220K JA 1/10W
R3130	401 038 2200	MT-GLAZE 27K JA 1/10W
R3131	401 038 3702	MT-GLAZE 33K JA 1/10W
R3132	401 038 3702	MT-GLAZE 33K JA 1/10W
R3133	401 038 6505	MT-GLAZE 47K JA 1/10W
R3134	401 038 3702	MT-GLAZE 33K JA 1/10W
R3135	401 037 8203	MT-GLAZE 1.5M JA 1/10W
R3136	401 038 0800	MT-GLAZE 22K JA 1/10W
R3137	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3138	401 037 5400	MT-GLAZE 1K JA 1/10W
R3139	401 038 0305	MT-GLAZE 200K JA 1/10W
R3140	401 037 5400	MT-GLAZE 1K JA 1/10W
R3141	401 038 0305	MT-GLAZE 200K JA 1/10W
R3142	401 037 5400	MT-GLAZE 1K JA 1/10W
R3143	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3144	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3145	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3146	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R3152	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R3153	401 037 5400	MT-GLAZE 1K JA 1/10W
R3154	401 037 5400	MT-GLAZE 1K JA 1/10W
R3155	401 037 5400	MT-GLAZE 1K JA 1/10W
R3156	401 037 5400	MT-GLAZE 1K JA 1/10W

COMPL,PW-1

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	613 109 4505	(VHR-7500G,7530G)
COMPL.NO.	613 109 4512	(VHR-7500EX,8500SP)
	613 053 8055	FIXER
	613 108 7545	HOLDER,FUSE
C5101	403 110 1705	ELECT 2200U M 25V
OR	403 148 0701	ELECT 2200U M 25V
C5102	403 110 1705	ELECT 2200U M 25V
OR	403 148 0701	ELECT 2200U M 25V
C5103	403 160 6804	ELECT 3300U M 16V
OR	403 158 0500	ELECT 3300U M 16V
C5104	403 157 0006	ELECT 47U M 63V
C5105	403 195 5100	ELECT 47U M 100V
OR	403 155 5805	ELECT 47U M 100V
C5106	403 168 6103	MT-POLYEST 0.1U J 50V
C5107	403 135 9403	ELECT 47U M 35V
C5108	403 107 9905	ELECT 10U M 16V
C5109	403 107 9905	ELECT 10U M 16V
C5110	403 107 9905	ELECT 10U M 16V

LOCATION	PARTS NO.	DESCRIPTION
D5101	407 004 9600	DIODE DSF10TC-BT
D5102	407 004 9600	DIODE DSF10TC-BT
D5103	407 132 7400	DIODE GP30DL-6326
D5104	407 132 7400	DIODE GP30DL-6326
D5105	407 004 9709	DIODE DSK10C-BT
OR	407 088 6502	DIODE MPG06D-PKG3
OR	407 005 8701	DIODE ERA15-02-V5
D5106	407 004 9709	DIODE DSK10C-BT
OR	407 088 6502	DIODE MPG06D-PKG3
OR	407 005 8701	DIODE ERA15-02-V5
D5107	407 004 9709	DIODE DSK10C-BT
OR	407 088 6502	DIODE MPG06D-PKG3
OR	407 005 8701	DIODE ERA15-02-V5
D5108	407 004 9709	DIODE DSK10C-BT
OR	407 088 6502	DIODE MPG06D-PKG3
OR	407 005 8701	DIODE ERA15-02-V5
D5109	407 078 2705	DIODE 1SS244-T-77
D5110	407 078 2705	DIODE 1SS244-T-77
F5001 ⚠	423 004 6708	FUSE 250V0.315A
F5101 ⚠	423 004 3004	FUSE 250V 0.8A
F5102 ⚠	423 005 4901	FUSE 250V 1.6A
F5103 ⚠	423 006 1305	FUSE 250V 2A
F5104 ⚠	423 004 6708	FUSE 250V0.315A
L5001 ⚠	613 080 0664	LF CHOKE(VHR-7500G,7530G)
OR ⚠	613 013 1409	LF CHOKE(VHR-7500G,7530G)
R5101	401 007 8301	CARBON 1.5K JA 1/2W
R5102	401 007 8301	CARBON 1.5K JA 1/2W
COMPL,PW-1		
COMPL.NO.	613 110 7922	(VHR-7540G ONLY)
	613 118 1618	HOLDER,FUSE
C5101	403 065 8002	MT-POLYEST 0.1U J 63V
C5102	403 097 6502	ELECT 2200U M 50V
OR	403 135 7706	ELECT 2200U M 50V
C5105	403 157 0006	ELECT 47U M 63V
C5106	403 156 9703	ELECT 22U M 63V
C5108	403 160 7207	ELECT 470U M 16V
C5109	404 049 6908	ELECT 1000U M 10V
C5110	403 044 1703	ELECT 470U M 16V
C5111	403 135 4507	ELECT 1000U M 10V
C5112	403 129 5800	ELECT 22U M 35V
C5113	403 002 4708	CERAMIC 0.1U Z 25V
C5115	403 125 5606	ELECT 100U M 16V
D5101	407 090 2608	DIODE DBF40E
D5102	407 078 2705	DIODE 1SS244-T-77
D5103	407 078 2705	DIODE 1SS244-T-77
D5110	407 050 9104	ZENER DIODE GZB16C
D5111	407 050 8107	ZENER DIODE GZB10C
F5001 ⚠	423 003 3708	FUSE 250V 0.4A
F5101 ⚠	423 004 6708	FUSE 250V0.315A
IC511	409 214 8909	IC STK7576
IC512	409 214 8800	IC SI-3120C
L5001	613 080 0664	LF CHOKE
L5101	613 013 0730	LF CHOKE
L5102	613 013 0730	LF CHOKE
L5103	613 110 4198	COIL,INDUCTOR 10UH K
L5105	613 017 0392	CORE
L5107	613 017 0392	CORE
R5102	401 008 7402	CARBON 2.2K JA 1/2W
R5103	401 057 3004	OXIDE-MT 0.22 JA 1W
R5104	401 057 4001	OXIDE-MT 0.33 JA 1W
COMPL,PW-2		
COMPL.NO.	613 109 4529	(EXCEPT VHR-7540G)
IC521	409 214 4208	IC STK5446
IF PACK		
COMPL.NO.	613 107 0547	(EXCEPT VHR-7530G)
COMPL.NO.	613 108 3585	(VHR-7530G)
C6103	403 021 0200	CERAMIC 3P C 50V
C6104	403 021 0200	CERAMIC 3P C 50V
C6105	403 006 6203	CERAMIC 1P C 50V
C6106	403 006 6203	CERAMIC 1P C 50V
C6107	403 071 8102	CERAMIC 2200P K 50V
C6108	403 069 1702	CERAMIC 1000P K 50V
C6109	403 023 4404	CERAMIC 330P J 50V
C6110	403 071 8102	CERAMIC 2200P K 50V
C6113	403 075 0706	CERAMIC 6800P K 50V
C6114	403 034 1409	CERAMIC 9P C 50V
C6115	403 070 9803	CERAMIC 0.015U K 50V
C6116	403 049 1005	ELECT 1U M 50V
C6117	403 069 1702	CERAMIC 1000P K 50V
C6119	403 075 0706	CERAMIC 6800P K 50V
C6120	403 053 9707	ELECT 4.7U M 35V
C6121	403 075 5305	CERAMIC 8200P K 50V
C6122	403 041 9603	ELECT 10U M 16V
C6123	403 075 0706	CERAMIC 6800P K 50V
C6124	403 069 5601	CERAMIC 0.01U K 50V
C6125	403 033 4500	CERAMIC 82P J 50V
C6127	403 022 8205	CERAMIC 33P J 50V
C6128	403 075 0706	CERAMIC 6800P K 50V
C6129	403 043 9700	ELECT 47U M 16V
C6130	403 017 0900	CERAMIC 20P J 50V (EXCEPT VHR-7530G)
OR	403 013 7903	CERAMIC 16P J 50V (VHR-7530G)
C6133	403 014 3409	CERAMIC 18P J 50V
C6134	403 026 2803	CERAMIC 47P J 50V
C6137	403 033 4708	CERAMIC 82P J 50V
C6138	403 075 0706	CERAMIC 6800P K 50V
C6139	403 047 9201	ELECT 0.1U M 50V
C6141	403 069 5601	CERAMIC 0.01U K 50V
C6142	403 075 0706	CERAMIC 6800P K 50V
C6143	403 012 6808	CERAMIC 15P J 50V
IC611	409 019 3307	IC LA7530N
L6102	613 014 0746	HF CHOKE 1.2UH M
L6103	613 098 8393	COIL,CHOKE 1.2UH
L6105	613 014 0869	HF CHOKE 12UH K
L6106	613 014 0869	HF CHOKE 12UH K(EXCEPT VHR-7530G)
OR	613 014 0852	HF CHOKE 10UH K(VHR-7530G)
L6107	613 014 0869	HF CHOKE 12UH K
L6108	613 014 0913	HF CHOKE 33UH K
L6109	613 014 0845	HF CHOKE 8.2UH K
Q6101	405 015 5505	TR 2SC2757-T1B-T33
Q6102	405 002 0209	TR 2SA1037K-Q
Q6103	405 021 2406	TR 2SD1048-X7-TB
R6101	401 037 7206	MT-GLAZE 130 JA 1/10W
R6102	401 014 2804	CARBON 150 JA 1/4W
R6103	401 038 0602	MT-GLAZE 220 JA 1/10W
R6104	401 037 7800	MT-GLAZE 150 JA 1/10W
R6105	401 039 0205	MT-GLAZE 82 JA 1/10W
R6106	401 038 9704	MT-GLAZE 7.5K JA 1/10W

LOCATION	PARTS NO.	DESCRIPTION
R6107	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R6108	401 037 5400	MT-GLAZE 1K JA 1/10W
R6109	401 038 0503	MT-GLAZE 22 JA 1/10W
R6110	401 037 7909	MT-GLAZE 1.5K JA 1/10W
R6111	401 038 6307	MT-GLAZE 470 JA 1/10W
R6112	401 038 2002	MT-GLAZE 270 JA 1/10W
R6113	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R6114	401 038 7205	MT-GLAZE 5.1K JA 1/10W
R6115	401 037 9200	MT-GLAZE 1.8K JA 1/10W
R6116	401 038 0800	MT-GLAZE 22K JA 1/10W
R6117	401 012 5609	CARBON 1K JA 1/4W
R6118	401 038 4105	MT-GLAZE 3.6K JA 1/10W
R6119	401 037 5400	MT-GLAZE 1K JA 1/10W
R6120	401 037 7305	MT-GLAZE 1.3K JA 1/10W
R6121	401 038 2002	MT-GLAZE 270 JA 1/10W
R6124	401 038 6406	MT-GLAZE 4.7K JA 1/10W (EXCEPT VHR-7530G)
OR	401 038 7700	MT-GLAZE 5.6K JA 1/10W (VHR-7530G)
R6126	401 037 7800	MT-GLAZE 150 JA 1/10W
R6128	401 037 5202	MT-GLAZE 100 JA 1/10W
R6129	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R6130	401 037 5202	MT-GLAZE 100 JA 1/10W
R6132	401 037 7503	MT-GLAZE 130K JA 1/10W (EXCEPT VHR-7530G)
OR	401 038 7809	MT-GLAZE 56K JA 1/10W (VHR-7530G)
R6133	401 037 5400	MT-GLAZE 1K JA 1/10W
R6134	401 012 6903	CARBON 10K JA 1/4W (EXCEPT VHR-7530G)
OR	401 017 9206	CARBON 3K JA 1/4W (VHR-7530G)
R6135	401 037 8104	MT-GLAZE 150K JA 1/10W (EXCEPT VHR-7530G)
OR	401 038 9308	MT-GLAZE 68K JA 1/10W (VHR-7530G)
R6136	401 038 0008	MT-GLAZE 200 JA 1/10W
R6137	401 037 7800	MT-GLAZE 150 JA 1/10W (EXCEPT VHR-7530G)
OR	401 037 8500	MT-GLAZE 160 JA 1/10W (VHR-7530G)
R6138	401 037 7800	MT-GLAZE 150 JA 1/10W
T6101	613 098 8355	TRANS,IF
T6102	613 098 8362	TRANS,IF
T6103	613 098 8379	TRANS,IF
T6104	613 098 8386	TRANS,IF
VR611	613 001 9035	SEMI VR 10KB
XF611	421 002 9509	SAW F TSF1338L
XF612	613 084 1728	FILTER
XF613	613 110 1050	FILTER
XF614	613 084 1674	FILTER
XF615	613 098 8317	DISCR,CERAMIC 5.74M
COMPL,TN-7		
COMPL.NO.	613 109 4420	(EXCEPT VHR-7500EX)
COMPL.NO.	613 109 1030	(VHR-7500EX)
B6901	405 018 1900	TR 2SC3395-TB
OR	405 029 3504	TR DTC144EK-T96
C6901	403 068 0409	CERAMIC 0.1U Z 25V
C6902	403 189 2405	ELECT 10U M 16V
C6903	403 072 3403	CERAMIC 0.022U Z 50V
C6904	403 193 8400	ELECT 0.22U M 50V
C6921	403 068 0409	CERAMIC 0.1U Z 25V (VHR-7500EX ONLY)

LOCATION	PARTS NO.	DESCRIPTION
C6922	403 014 9203	CERAMIC 180P J 50V (VHR-7500EX ONLY)
C6923	403 069 1702	CERAMIC 1000P K 50V (VHR-7500EX ONLY)
C6924	403 168 6202	MT-POLYEST 0.33U J 50V (VHR-7500EX ONLY)
OR	403 115 1007	MT-POLYEST 0.33U J 63V (VHR-7500EX ONLY)
OR	403 067 7300	MT-COMPO 0.33U J 50V (VHR-7500EX ONLY)
C6925	403 184 9805	MT-POLYEST 0.22U J 50V (VHR-7500EX ONLY)
OR	403 065 8101	MT-POLYEST 0.22U J 63V (VHR-7500EX ONLY)
OR	403 067 6709	MT-COMPO 0.22U J 50V (VHR-7500EX ONLY)
D6901	407 004 0706	DIODE DCB015-TB
OR	407 003 3609	DIODE DAN202K-T-96
D6902	407 003 5108	DIODE DA204K-T96
IC691	409 019 6209	IC LA7910(VHR-7500EX ONLY)
J6901	401 037 5004	MT-GLAZE 0.000 ZA 1/10W
Q6901	405 015 8308	TR 2SC2812-L4-TB
OR	405 015 8407	TR 2SC2812-L5-TB
OR	405 014 4400	TR 2SC2412K-T96-Q
OR	405 014 4509	TR 2SC2412K-T96-R
Q6902	405 030 7201	TR 2SA1338-4-TB
OR	405 030 7300	TR 2SA1338-5-TB
Q6903	405 015 8308	TR 2SC2812-L4-TB
OR	405 015 8407	TR 2SC2812-L5-TB
OR	405 014 4400	TR 2SC2412K-T96-Q
OR	405 014 4509	TR 2SC2412K-T96-R
Q6921	405 084 8209	TR 2SC2960-F-SPA-AC (VHR-7500EX ONLY)
OR	405 084 8308	TR 2SC2960-G-SPA-AC (VHR-7500EX ONLY)
R6901	401 037 5400	MT-GLAZE 1K JA 1/10W
R6902	401 038 3504	MT-GLAZE 330 JA 1/10W
R6903	401 038 8509	MT-GLAZE 620 JA 1/10W
R6904	401 037 5608	MT-GLAZE 10K JA 1/10W
R6905	401 038 3801	MT-GLAZE 330K JA 1/10W
R6906	401 037 5608	MT-GLAZE 10K JA 1/10W
R6907	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R6908	401 039 0205	MT-GLAZE 82 JA 1/10W
R6909	401 037 5400	MT-GLAZE 1K JA 1/10W
R6910	401 038 7106	MT-GLAZE 510 JA 1/10W
R6911	401 038 7700	MT-GLAZE 5.6K JA 1/10W
R6912	401 038 5102	MT-GLAZE 3.9K JA 1/10W
R6921	401 038 5102	MT-GLAZE 3.9K JA 1/10W (VHR-7500EX ONLY)
R6922	401 038 3702	MT-GLAZE 33K JA 1/10W (VHR-7500EX ONLY)
R6923	401 037 5608	MT-GLAZE 10K JA 1/10W (VHR-7500EX ONLY)
R6924	401 037 5608	MT-GLAZE 10K JA 1/10W (VHR-7500EX ONLY)
R6925	401 037 9309	MT-GLAZE 18K JA 1/10W (VHR-7500EX ONLY)
R6926	401 037 8005	MT-GLAZE 15K JA 1/10W (VHR-7500EX ONLY)
R6927	401 037 6803	MT-GLAZE 12K JA 1/10W (VHR-7500EX ONLY)
T6901	613 109 0958	TRANS,IF
OR	613 109 0965	TRANS,IF

LOCATION	PARTS NO.	DESCRIPTION
COMPL,TM-1		
COMPL.NO.	613 112 5056	(VHR-7500G,8500SP)
COMPL.NO.	613 112 5063	(VHR-7540G)
COMPL.NO.	613 114 3456	(VHR-7530G)
COMPL.NO.	613 112 5070	(VHR-7500EX)
	613 022 0875	HOLDER
A7101	613 084 3197	FLUORESCENT TUBE
C7102	403 014 2501	CERAMIC 18P J 50V
C7103	403 017 0108	CERAMIC 20P J 50V
C7104	403 001 1609	CERAMIC 0.01U K 16V
C7105	403 139 1601	ELECT 22U M 16V
C7106	403 001 1609	CERAMIC 0.01U K 16V
C7107	403 001 1609	CERAMIC 0.01U K 16V
C7108	403 139 2608	ELECT 0.47U M 50V
C7111	403 121 9509	CERAMIC 0.1U Z 50V
C7113	403 139 1502	ELECT 10U M 16V
D7101	407 120 5807	DIODE AK04-V2
D7103	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7104	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7105	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7106	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7107	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7108	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7110	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7120	407 007 9904	DIODE GMA01-BT(VHR-7530G ONLY)
OR	407 012 4406	DIODE 1SS133-T-77(VHR-7530G ONLY)
D7123	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7125	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
IC711	409 214 4000	IC M50959-292SP(EXCEPT VHR-7500EX)
OR	409 216 2905	IC M50958-294SP(VHR-7500EX)
IC712	409 032 3308	IC MN1280-L
R7101	401 012 9201	CARBON 1M JA 1/4W
R7102	401 110 6201	CARBON 10M JA 1/4W
R7103	401 018 5702	CARBON 330K JA 1/4W
R7104	401 012 5609	CARBON 1K JA 1/4W
R7105	401 012 6903	CARBON 10K JA 1/4W
R7106	401 012 5609	CARBON 1K JA 1/4W
R7107	401 012 6903	CARBON 10K JA 1/4W
R7108	401 012 5609	CARBON 1K JA 1/4W
R7109	401 012 6903	CARBON 10K JA 1/4W
R7110	401 012 5609	CARBON 1K JA 1/4W
R7111	401 012 6903	CARBON 10K JA 1/4W
R7112	401 012 6903	CARBON 10K JA 1/4W
R7114	401 012 6903	CARBON 10K JA 1/4W
R7115	401 012 6903	CARBON 10K JA 1/4W
R7116	401 016 4707	CARBON 22K JA 1/4W
R7117	401 012 6903	CARBON 10K JA 1/4W
R7118	401 012 5609	CARBON 1K JA 1/4W
R7119	401 012 5609	CARBON 1K JA 1/4W
R7121	401 012 6903	CARBON 10K JA 1/4W
R7122	401 012 5609	CARBON 1K JA 1/4W
R7123	401 012 5609	CARBON 1K JA 1/4W
R7124	401 018 4804	CARBON 33K JA 1/4W
R7126	401 012 6903	CARBON 10K JA 1/4W
R7127	401 012 6903	CARBON 10K JA 1/4W
R7132	401 012 6903	CARBON 10K JA 1/4W
R7133	401 018 5702	CARBON 330K JA 1/4W
RR711	613 094 0421	IR RECEIVER PACK
S7101	613 006 3649	PUSH SWITCH,PLAY
OR	613 079 4130	SW,PUSH,PLAY
OR	613 092 1734	SW,PUSH,PLAY
OR	613 092 0751	SW,PUSH,PLAY
S7102	613 006 3649	PUSH SWITCH,STOP
OR	613 079 4130	SW,PUSH,STOP
OR	613 092 1734	SW,PUSH,STOP
OR	613 092 0751	SW,PUSH,STOP
S7103	613 006 3649	PUSH SWITCH,PAUSE
OR	613 079 4130	SW,PUSH,PAUSE
OR	613 092 1734	SW,PUSH,PAUSE
OR	613 092 0751	SW,PUSH,PAUSE
S7104	613 006 3700	PUSH SWITCH,TAPE SPEED
OR	613 079 4178	SW,PUSH,TAPE SPEED
OR	613 093 8596	SW,PUSH,TAPE SPEED
OR	613 093 8602	SW,PUSH,TAPE SPEED
S7106	613 006 3700	PUSH SWITCH,UP
OR	613 079 4178	SW,PUSH,UP
OR	613 093 8596	SW,PUSH,UP
OR	613 093 8602	SW,PUSH,UP
S7108	613 006 3700	PUSH SWITCH,TR+/FT+
OR	613 079 4178	SW,PUSH,TR+/FT+
OR	613 093 8596	SW,PUSH,TR+/FT+
OR	613 093 8602	SW,PUSH,TR+/FT+
S7113	613 006 3649	PUSH SWITCH,REC
OR	613 079 4130	SW,PUSH,REC
OR	613 092 1734	SW,PUSH,REC
OR	613 092 0751	SW,PUSH,REC
S7118	613 006 3700	PUSH SWITCH,DOWN
OR	613 079 4178	SW,PUSH,DOWN
OR	613 093 8596	SW,PUSH,DOWN
OR	613 093 8602	SW,PUSH,DOWN
S7120	613 006 3700	PUSH SWITCH,TR-/FT-
OR	613 079 4178	SW,PUSH,TR-/FT-
OR	613 093 8596	SW,PUSH,TR-/FT-
OR	613 093 8602	SW,PUSH,TR-/FT-
S7125	613 006 3649	PUSH SWITCH,REW
OR	613 079 4130	SW,PUSH,REW
OR	613 092 1734	SW,PUSH,REW
OR	613 092 0751	SW,PUSH,REW
S7126	613 006 3649	PUSH SWITCH,FF
OR	613 079 4130	SW,PUSH,FF
OR	613 092 1734	SW,PUSH,FF
OR	613 092 0751	SW,PUSH,FF
S7129	613 006 3700	PUSH SWITCH,PRESET
OR	613 079 4178	SW,PUSH,PRESET
OR	613 093 8596	SW,PUSH,PRESET
OR	613 093 8602	SW,PUSH,PRESET
S7130	613 006 3700	PUSH SWITCH,OK
OR	613 079 4178	SW,PUSH,OK
OR	613 093 8596	SW,PUSH,OK
OR	613 093 8602	SW,PUSH,OK
S7137	613 006 3700	PUSH SWITCH,ALL CLEAR
OR	613 079 4178	SW,PUSH,ALL CLEAR
OR	613 093 8596	SW,PUSH,ALL CLEAR
OR	613 093 8602	SW,PUSH,ALL CLEAR
X7101	613 089 4069	RESONATOR,CERAMIC 6MHZ
OR	613 108 9570	RESONATOR,CERAMIC 6MHZ
X7102	613 109 0972	OSC,CRYSTAL 32KHZ

COMPL,TM-2

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	613 108 9761	
S7114	613 006 3649	PUSH SWITCH,EJECT
OR	613 079 4130	SW,PUSH,EJECT
OR	613 092 1734	SW,PUSH,EJECT
OR	613 092 0751	SW,PUSH,EJECT
S7115	613 006 3649	PUSH SWITCH,POWER
OR	613 079 4130	SW,PUSH,POWER
OR	613 092 1734	SW,PUSH,POWER
OR	613 092 0751	SW,PUSH,POWER
VR771	613 079 2495	VR,ROTARY 10KB

COMPL,VPT UNIT

LOCATION	PARTS NO.	DESCRIPTION
COMPL.NO.	613 111 3589	(VHR-7540G ONLY)
B7602	405 018 2402	TR 2SC3398-TB
B7603	405 003 7405	TR 2SA1344-TB
C7601	403 155 2804	DL-ELECT 0.047F Z 5.5V
C7602	403 041 2703	ELECT 47U M 10V
C7603	403 039 3507	ELECT 470U M 6.3V
C7604	403 069 9500	CERAMIC 0.01U Z 50V
C7605	403 069 9500	CERAMIC 0.01U Z 50V
C7606	403 069 9500	CERAMIC 0.01U Z 50V
C7609	403 041 9405	ELECT 10U M 16V
C7610	403 069 9500	CERAMIC 0.01U Z 50V
C7611	403 069 9500	CERAMIC 0.01U Z 50V
C7640	403 012 6907	CERAMIC 15P J 50V
C7642	403 069 9500	CERAMIC 0.01U Z 50V
C7643	403 069 9500	CERAMIC 0.01U Z 50V
C7644	403 041 2703	ELECT 47U M 10V
C7645	403 069 9500	CERAMIC 0.01U Z 50V
C7646	403 043 9106	ELECT 47U M 16V
C7651	403 161 6902	NP-ELECT 2.2U M 50V
C7652	403 012 6907	CERAMIC 15P J 50V
C7653	403 069 1702	CERAMIC 1000P K 50V
C7654	403 026 7600	CERAMIC 470P J 50V
C7655	403 072 1607	CERAMIC 0.022U K 50V
C7656	403 020 5602	CERAMIC 270P J 50V
C7657	403 009 5807	CERAMIC 100P J 50V
C7658	403 012 6907	CERAMIC 15P J 50V
C7659	403 020 0508	CERAMIC 27P J 50V
C7660	403 067 6709	MT-COMPO 0.22U J 50V
C7661	403 130 3604	CERAMIC 0.047U K 25V
C7662	403 130 3604	CERAMIC 0.047U K 25V
C7663	403 049 0800	ELECT 1U M 50V
C7664	403 073 1200	CERAMIC 0.033U K 50V
C7665	403 014 3508	CERAMIC 18P J 50V
C7666	403 018 0602	CERAMIC 22P J 50V
C7667	403 018 7502	CERAMIC 220P J 50V
C7668	403 075 2304	CERAMIC 0.068U Z 50V
C7669	403 043 9601	ELECT 47U M 16V
C7670	403 069 9500	CERAMIC 0.01U Z 50V
C7671	403 069 9500	CERAMIC 0.01U Z 50V
C7672	403 041 2703	ELECT 47U M 10V
C7673	403 069 9500	CERAMIC 0.01U Z 50V
C7674	403 042 8308	ELECT 22U M 16V
C7675	403 042 8308	ELECT 22U M 16V
C7676	403 042 8308	ELECT 22U M 16V
C7677	403 069 5601	CERAMIC 0.01U K 50V
C7678	403 018 7502	CERAMIC 220P J 50V
C7679	403 027 1300	CERAMIC 5P C 50V
C7680	403 047 9003	ELECT 0.1U M 50V
C7681	403 011 5000	CERAMIC 120P J 50V
C7682	403 041 9405	ELECT 10U M 16V
C7683	403 069 9500	CERAMIC 0.01U Z 50V
C7684	403 047 9003	ELECT 0.1U M 50V
C7685	403 047 9003	ELECT 0.1U M 50V
C7686	403 069 5601	CERAMIC 0.01U K 50V
C7687	403 069 1702	CERAMIC 1000P K 50V
C7688	403 069 5601	CERAMIC 0.01U K 50V
C7689	403 085 5203	NP-ELECT 22U M 16V
C7690	403 041 9405	ELECT 10U M 16V
C7692	403 042 3006	ELECT 100U M 16V
C7693	403 042 3006	ELECT 100U M 16V
C7694	403 042 3006	ELECT 100U M 16V
C7697	403 105 9501	CERAMIC 1000P J 50V
CT761	613 002 6378	TRIMMER
D7602	407 007 9904	DIODE GMA01-BT
OR	407 012 4406	DIODE 1SS133-T-77
D7603	407 004 0706	DIODE DCB015-TB
OR	407 003 3609	DIODE DAN202K-T-96
D7657	407 004 0706	DIODE DCB015-TB
OR	407 003 3609	DIODE DAN202K-T-96
D7658	407 004 0706	DIODE DCB015-TB
OR	407 003 3609	DIODE DAN202K-T-96
D7659	407 004 0706	DIODE DCB015-TB
OR	407 003 3609	DIODE DAN202K-T-96
D7660	407 099 4702	ZENER DIODE MTZJ4.3A-T-77
IC761	409 120 6402	IC 8031AH
IC762	410 100 7005	IC TMS27PC512-20N.S07
IC763	409 175 8307	IC LH5164LN-10
OR	409 194 6100	IC SRM2264LC-10
OR	409 194 6209	IC SRM2264LC-12
OR	409 225 6000	IC LH5164N-10L
IC764	409 052 6907	IC TC74HC373P
OR	409 067 5506	IC LC74HC373
IC765	409 032 3704	IC MN1280-R
IC766	409 184 0507	IC SDA5231
OR	409 107 8108	IC SAA5231
IC767	409 196 0304	IC SDA5243
OR	409 211 2603	IC SAA5243P/E
IC768	409 175 8307	IC LH5164LN-10
OR	409 194 6100	IC SRM2264LC-10
OR	409 194 6209	IC SRM2264LC-12
OR	409 225 6000	IC LH5164N-10L
IC769	409 184 0408	IC MC1377
IC770	409 168 8703	IC NJM2235D
L7601	613 015 6112	HF CHOKE 18UH J
L7602	613 015 6112	HF CHOKE 18UH J
L7603	613 015 6112	HF CHOKE 18UH J
L7604	613 015 6112	HF CHOKE 18UH J
L7651	613 014 0876	HF CHOKE 15UH K
PR761	613 000 2556	CIRCUIT PROTECTOR
Q7601	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
Q7602	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
Q7651	405 002 6508	TR 2SA1179-M5-TB
OR	405 002 6706	TR 2SA1179-M6-TB
Q7653	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
Q7654	405 002 6508	TR 2SA1179-M5-TB
OR	405 002 6706	TR 2SA1179-M6-TB
Q7655	405 002 6508	TR 2SA1179-M5-TB
OR	405 002 6706	TR 2SA1179-M6-TB
Q7656	405 002 6508	TR 2SA1179-M5-TB
OR	405 002 6706	TR 2SA1179-M6-TB
Q7657	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB

LOCATION	PARTS NO.	DESCRIPTION
Q7658	405 002 6508	TR 2SA1179-M5-TB
OR	405 002 6706	TR 2SA1179-M6-TB
Q7659	405 002 6508	TR 2SA1179-M5-TB
OR	405 002 6706	TR 2SA1179-M6-TB
Q7660	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
Q7661	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
R7601	401 037 5400	MT-GLAZE 1K JA 1/10W
R7602	401 037 5400	MT-GLAZE 1K JA 1/10W
R7603	401 037 5400	MT-GLAZE 1K JA 1/10W
R7604	401 037 5400	MT-GLAZE 1K JA 1/10W
R7605	401 038 3702	MT-GLAZE 33K JA 1/10W
R7606	401 038 3702	MT-GLAZE 33K JA 1/10W
R7607	401 037 5608	MT-GLAZE 10K JA 1/10W
R7615	401 037 5608	MT-GLAZE 10K JA 1/10W
R7616	401 037 5608	MT-GLAZE 10K JA 1/10W
R7617	401 037 5608	MT-GLAZE 10K JA 1/10W
R7618	401 037 5608	MT-GLAZE 10K JA 1/10W
R7620	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R7621	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R7622	401 037 5202	MT-GLAZE 100 JA 1/10W
R7623	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R7624	401 038 9001	MT-GLAZE 680 JA 1/10W
R7625	401 038 7106	MT-GLAZE 510 JA 1/10W
R7626	401 037 5608	MT-GLAZE 10K JA 1/10W
R7627	401 037 5400	MT-GLAZE 1K JA 1/10W
R7629	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R7631	401 038 6406	MT-GLAZE 4.7K JA 1/10W
R7633	401 037 9200	MT-GLAZE 1.8K JA 1/10W
R7634	401 038 2200	MT-GLAZE 27K JA 1/10W
R7635	401 037 8005	MT-GLAZE 15K JA 1/10W
R7636	401 039 0601	MT-GLAZE 820K JA 1/10W
R7637	401 038 2309	MT-GLAZE 270K JA 1/10W
R7638	401 037 5608	MT-GLAZE 10K JA 1/10W
R7640	401 038 9506	MT-GLAZE 75 JA 1/10W
R7641	401 037 9101	MT-GLAZE 180 JA 1/10W
R7642	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R7643	401 038 5904	MT-GLAZE 4.3K JA 1/10W
R7644	401 037 5608	MT-GLAZE 10K JA 1/10W
R7645	401 037 5202	MT-GLAZE 100 JA 1/10W
R7646	401 037 9200	MT-GLAZE 1.8K JA 1/10W
R7649	401 038 7809	MT-GLAZE 56K JA 1/10W
R7651	401 037 6704	MT-GLAZE 1.2K JA 1/10W
R7652	401 038 3603	MT-GLAZE 3.3K JA 1/10W
R7653	401 037 5400	MT-GLAZE 1K JA 1/10W
R7654	401 038 3504	MT-GLAZE 330 JA 1/10W
R7655	401 038 7809	MT-GLAZE 56K JA 1/10W
R7659	401 037 5400	MT-GLAZE 1K JA 1/10W
R7660	401 037 5400	MT-GLAZE 1K JA 1/10W
R7661	401 037 5608	MT-GLAZE 10K JA 1/10W
R7662	401 038 5003	MT-GLAZE 390 JA 1/10W
R7666	401 037 5202	MT-GLAZE 100 JA 1/10W
R7668	401 037 9200	MT-GLAZE 1.8K JA 1/10W
R7669	401 038 2002	MT-GLAZE 270 JA 1/10W
R7670	401 038 2002	MT-GLAZE 270 JA 1/10W
R7671	401 038 2002	MT-GLAZE 270 JA 1/10W
R7672	401 038 9001	MT-GLAZE 680 JA 1/10W
R7673	401 037 5400	MT-GLAZE 1K JA 1/10W
R7674	401 038 4006	MT-GLAZE 360 JA 1/10W
R7675	401 038 8509	MT-GLAZE 620 JA 1/10W
R7676	401 037 9101	MT-GLAZE 180 JA 1/10W
R7677	401 038 9506	MT-GLAZE 75 JA 1/10W
R7678	401 038 9001	MT-GLAZE 680 JA 1/10W
R7679	401 037 5400	MT-GLAZE 1K JA 1/10W
R7680	401 038 4006	MT-GLAZE 360 JA 1/10W
R7681	401 038 8509	MT-GLAZE 620 JA 1/10W
R7682	401 037 9101	MT-GLAZE 180 JA 1/10W

LOCATION	PARTS NO.	DESCRIPTION
R7683	401 038 9506	MT-GLAZE 75 JA 1/10W
R7693	401 038 9001	MT-GLAZE 680 JA 1/10W
R7694	401 037 5400	MT-GLAZE 1K JA 1/10W
R7695	401 038 4006	MT-GLAZE 360 JA 1/10W
R7696	401 038 8509	MT-GLAZE 620 JA 1/10W
R7697	401 037 9101	MT-GLAZE 180 JA 1/10W
R7698	401 038 9506	MT-GLAZE 75 JA 1/10W
X7601	613 099 3083	RESONATOR,CERAMIC 12MHZ
X7651	613 098 5088	OSC,CRYSTAL 13.875MHZ
X7652	613 099 3090	RESONATOR,CERAMIC 6MHZ
X7653	613 002 7818	CRYSTAL 4.433619MHZ 16PF
XF761	613 103 3917	FILTER,4.43MHZ
XF762	613 103 3924	FILTER,3MHZ

COMPL,TM-8

COMPL.NO.	613 108 5534	(VHR-7500G,7530G,7540G)
C7802	403 013 3103	CERAMIC 150P J 50V
C7803	403 067 7300	MT-COMPO 0.33U J 50V
OR	403 115 1007	MT-POLYEST 0.33U J 63V
OR	403 168 6202	MT-POLYEST 0.33U J 50V
C7804	403 057 2407	POLYESTER 0.1U J 50V
C7805	403 068 0409	CERAMIC 0.1U Z 25V
C7806	403 193 7502	ELECT 22U M 6.3V
IC781	409 148 5104	IC SDA5642
Q7801	405 015 8407	TR 2SC2812-L5-TB
OR	405 015 8704	TR 2SC2812-L6-TB
OR	405 014 4400	TR 2SC2412K-T96-Q
OR	405 014 4509	TR 2SC2412K-T96-R
R7801	401 038 6307	MT-GLAZE 470 JA 1/10W
R7802	401 037 5400	MT-GLAZE 1K JA 1/10W
R7803	401 037 5400	MT-GLAZE 1K JA 1/10W
R7804	401 037 9101	MT-GLAZE 180 JA 1/10W
R7805	401 038 0701	MT-GLAZE 2.2K JA 1/10W
R7806	401 037 5806	MT-GLAZE 1M JA 1/10W
R7807	401 039 0601	MT-GLAZE 820K JA 1/10W
R7808	401 037 5707	MT-GLAZE 100K JA 1/10W
R7809	401 037 5608	MT-GLAZE 10K JA 1/10W
R7810	401 037 7008	MT-GLAZE 1.2M JA 1/10W
R7811	401 037 5202	MT-GLAZE 100 JA 1/10W
R7812	401 038 7700	MT-GLAZE 5.6K JA 1/10W

COMPL,TB-1

COMPL.NO.	613 111 3176	(VHR-7500G,7530G)
COMPL.NO.	613 111 3183	(VHR-7540G)
COMPL.NO.	613 111 3169	(VHR-7500EX,8500SP)
B8611	405 018 2501	TR 2SC3399-AC
OR	405 000 6104	TR DTC144ES-DCTP
C8521	403 069 1207	CERAMIC 1000P K 50V (VHR-7500G,7530G,7540G)
C8522	403 069 1207	CERAMIC 1000P K 50V (VHR-7500G,7530G,7540G)
C8601	403 139 1007	ELECT 47U M 6.3V
C8602	403 139 1007	ELECT 47U M 6.3V
C8603	403 139 1007	ELECT 47U M 6.3V
C8604	403 001 1906	CERAMIC 0.01U M 16V
C8699	403 068 9402	CERAMIC 100P K 50V (VHR-7500G,7530G,7540G)
CN853	613 077 0905	SOCKET,21P
OR	613 105 6633	SOCKET,21P

LOCATION	PARTS NO.	DESCRIPTION
D8601	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D8602	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D8611	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D8612	407 012 4406	DIODE 1SS133-T-77
OR	407 007 9904	DIODE GMA01-BT
D8621	407 099 5303	ZENER DIODE MTZJ5.6B-T-77 (VHR-7540G ONLY)
D8622	407 099 5303	ZENER DIODE MTZJ5.6B-T-77 (VHR-7540G ONLY)
D8623	407 099 5303	ZENER DIODE MTZJ5.6B-T-77 (VHR-7540G ONLY)
D8624	407 099 5303	ZENER DIODE MTZJ5.6B-T-77 (VHR-7540G ONLY)
IC861	409 003 4501	IC BA7021
OR	409 120 3401	IC LA7221
L8521	613 014 0739	COIL,INDUCTOR 1.0UHM (VHR-7500G,7530G,7540G)
OR	613 014 4256	HF CHOKE 1.0UH K (VHR-7500G,7530G,7540G)
Q8611	405 004 4007	TR 2SA608-E-SPA-AC
OR	405 004 4601	TR 2SA608-F-SPA-AC
OR	405 006 1707	TR 2SA933S-TP-Q
OR	405 006 1806	TR 2SA933S-T93-R
OR	405 093 0508	TR KSA1175-Y
R8501	401 017 1705	CARBON 2.7K JA 1/4W
R8502	401 017 1705	CARBON 2.7K JA 1/4W
R8503	401 012 5609	CARBON 1K JA 1/4W
R8504	401 014 8509	CARBON 1.6K JA 1/4W
R8602	401 020 2805	CARBON 47K JA 1/4W
R8603	401 012 6903	CARBON 10K JA 1/4W
R8604	401 020 2805	CARBON 47K JA 1/4W
R8605	401 022 6702	CARBON 75 JA 1/4W
R8606	401 020 1907	CARBON 4.7K JA 1/4W
R8611	401 012 6903	CARBON 10K JA 1/4W
R8612	401 012 5609	CARBON 1K JA 1/4W
R8613	401 021 2903	CARBON 5.6K JA 1/4W
R8614	401 021 2903	CARBON 5.6K JA 1/4W
R8615	401 016 4707	CARBON 22K JA 1/4W
R8616	401 021 0602	CARBON 56 JA 1/4W
VR861	613 097 0572	VR,ROTARY 100KB
VR863	613 097 0572	VR,ROTARY 100KB

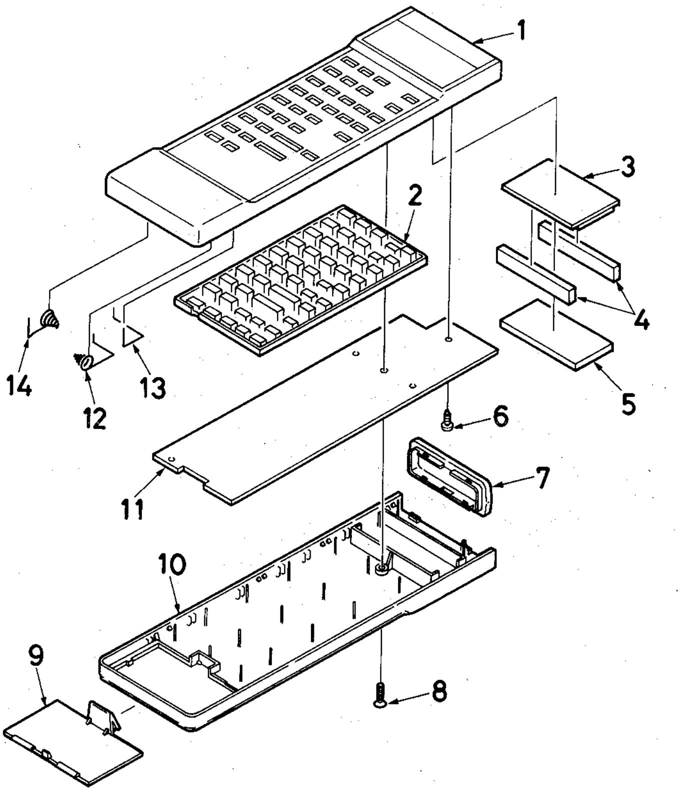
REMOCON

COMPL.NO.	613 112 7883	(VHR-7500G,7530G)
COMPL.NO.	613 111 4210	(VHR-7500EX,8500SP)
1	613 113 2184	ASSY,CABINET,TOP(VHR-7500G,7530G)
OR	613 113 2139	ASSY,CABINET,TOP(VHR-7500EX,8500SP)
2	613 113 1767	BUTTON(VHR-7500G,7530G)
OR	613 113 1736	BUTTON(VHR-7500EX,8500SP)
3	613 087 0087	LCD
4	613 080 9520	CONNECTOR
5	613 080 9728	SPACER
6	411 022 7807	SCR S-TPG PAN 2X6
7	613 080 9681	SIGN WINDOW
8	411 101 7308	SCR S-TPG FLT 2.6X10
9	613 040 1724	BATTERY LID
10	613 040 0727	BOTTOM LID
11	613 110 1128	COMPL,RM-1
12	613 080 9759	TERMINAL,-(INCLUDE RM-1)
13	613 080 9742	TERMINAL,+(INCLUDE RM-1)
14	613 080 9735	TERMINAL

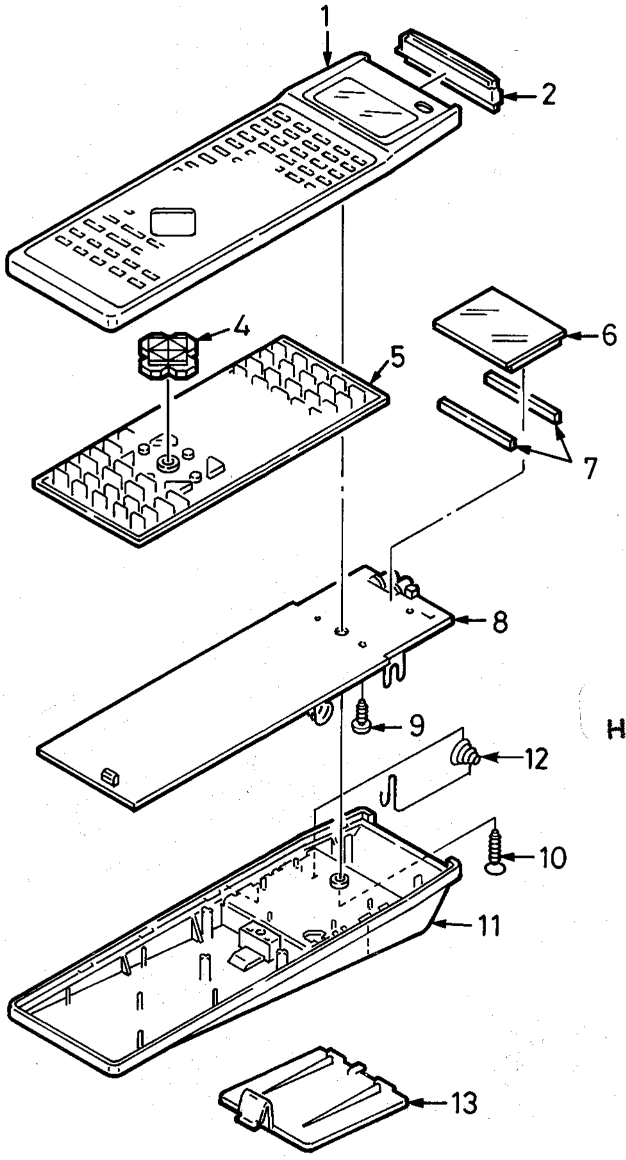
LOCATION	PARTS NO.	DESCRIPTION

COMPL,RM-1

COMPL.NO.	613 110 1128	(VHR-7500G,EX,7530G,8500SP)
C1	403 068 0409	CERAMIC 0.1U Z 25V
C2	403 049 0800	ELECT 1U M 50V
C3	613 087 2043	CAP,TRIM 20P
C4	403 068 0409	CERAMIC 0.1U Z 25V
C5	403 068 0409	CERAMIC 0.1U Z 25V
C6	403 068 0409	CERAMIC 0.1U Z 25V
C7	403 038 1603	ELECT 100U M 6.3V
IC1	409 218 2309	IC LC5863H-1120
IC2	409 129 3402	IC UPD74HC08G
OR	409 208 1909	IC MLC74HC08AM
OR	409 221 3102	IC MC74HC08AF
LED1	407 040 3709	LED SLR-932A
Q1	405 021 2406	TR 2SD1048-X7-TB
OR	405 021 2505	TR 2SD1048-X8-TB
R1	401 037 5202	MT-GLAZE 100 JA 1/10W
R2	401 015 6405	CARBON 2.2 JA 1/4W
R3	401 037 5202	MT-GLAZE 100 JA 1/10W
R5	401 039 0601	MT-GLAZE 820K JA 1/10W
X1	613 082 8156	OSC,CRYSTAL 38.2293KHZ



LOCATION	PARTS NO.	DESCRIPTION
REMOCON		
COMPL.NO.	613 111 8270	(VHR-7540G ONLY)
1	613 114 5344	ASSY,CABINET,TOP
2	613 100 2142	WINDOW
4	613 101 7207	KNOB
5	613 112 7265	BUTTON
6	613 103 6659	LCD
7	613 103 6567	CONNECTOR
8	613 111 3244	COMPL,RM-1(FVH-P445KV,P445S)
9	411 022 7708	SCR S-TPG PAN 2X5
10	411 022 0709	SCR S-TPG FLT 2X6
11	613 102 1846	CABINET,BOTTOM
12	613 103 6611	TERMINAL,BATTERY
13	613 099 8521	LID,BATTERY



LOCATION	PARTS NO.	DESCRIPTION
COMPL,RM-1		
COMPL.NO.	613 111 3244	(VHR-7540G ONLY)
	613 103 6574	TERMINAL,BATTERY,+
	613 103 6581	TERMINAL,BATTERY,-
C1	403 068 0409	CERAMIC 0.1U Z 25V
C2	403 050 0509	ELECT 2.2U M 50V
C3	613 087 2043	CAP,TRIM 20P
C4	403 068 0409	CERAMIC 0.1U Z 25V
C5	403 068 0409	CERAMIC 0.1U Z 25V
C6	403 068 0409	CERAMIC 0.1U Z 25V
C7	403 038 9708	ELECT 330U M 6.3V
C8	403 018 8905	CERAMIC 220P K 50V
C9	403 018 8905	CERAMIC 220P K 50V
IC1	409 219 0403	IC LC5866H-1132
IC2	409 118 4502	IC MC74HC00F
J2	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
J3	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
J4	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
J6	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
J7	401 035 4108	MT-GLAZE 0.000 ZA 1/8W
LED1	407 113 4206	LED SLR-932A-7
Q2	405 047 5405	TR 2SD1619-T
R1	401 038 0602	MT-GLAZE 220 JA 1/10W
R3	401 036 0307	MT-GLAZE 2.2 JA 1/8W
R6	401 037 5806	MT-GLAZE 1M JA 1/10W
R7	401 037 5202	MT-GLAZE 100 JA 1/10W
R9	401 039 0601	MT-GLAZE 820K JA 1/10W
X1	613 082 8156	OSC,CRYSTAL 38.2293KHZ
X2	613 087 8892	RESONATOR,CERAMIC 800KHZ

1 / PLVHR-7500G
HL06F201 / SERVICE

SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

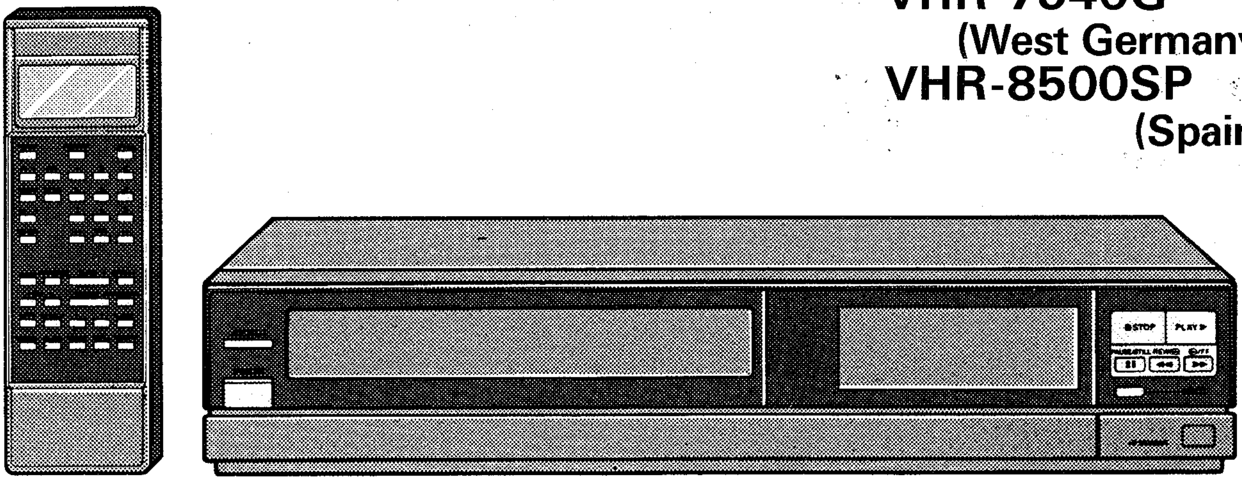
May./'90/3200 NS Printed in Japan

SANYO

Service Manual

Video Cassette Recorder

VHR-7500 series
VHR-7530G
(Switzerland etc.)
VHR-7540G
(West Germany)
VHR-8500SP
(Spain)



VHR-7500G

VHS PAL HQ

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2-5. TUNER IF CIRCUIT ADJUSTMENT 8
2-6. VIDEO TEXT DECODER CIRCUIT ADJUSTMENT 9

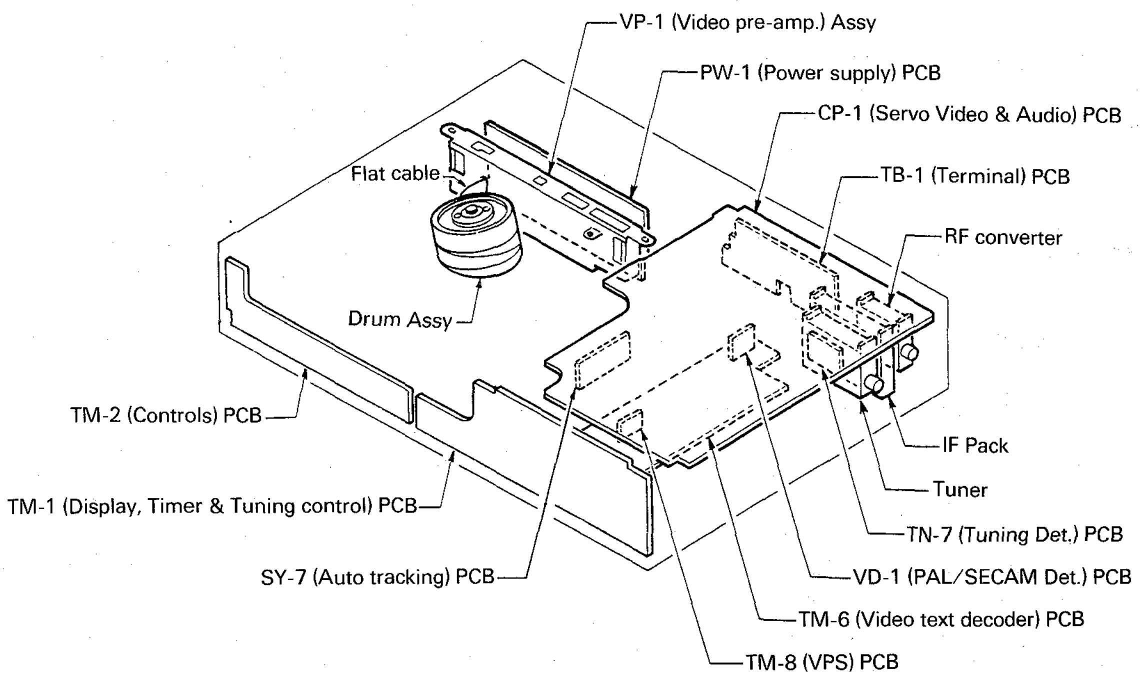
RP4/G, G2, EX, SP, A, SA, ME, HD
RP4V/G

REFERENCE No. WM-530660

1. CIRCUIT BOARD LOCATIONS

1-1. MAIN BOARDS

L13L017


VP-1 (Video pre-amp.) Assy
PW-1 (Power supply) PCB
CP-1 (Servo Video & Audio) PCB
TB-1 (Terminal) PCB
RF converter
Flat cable
Drum Assy
TM-2 (Controls) PCB
TM-1 (Display, Timer & Tuning control) PCB
SY-7 (Auto tracking) PCB
IF Pack
Tuner
TN-7 (Tuning Det.) PCB
VD-1 (PAL/SECAM Det.) PCB
TM-6 (Video text decoder) PCB
TM-8 (VPS) PCB

Note:
* TM-6 (Video text decoder) PCB is installed on VHR-7540G only.
* TM-8 (VPS) PCB is installed on VHR-7500G, 7530G, 7540G.
* VD-1 (PAL/SECAM Det.) PCB is not installed on VHR-7500, 7500SA, 7500HD, 8500SP.

Fig. 1-1

1-2. LOCATION FOR TAPE PATH ADJUSTMENT

NOTE: Test point TP182 and TP183 for tape path adjustment is shown in figure below.
For adjustment, refer to the separate volume "Mechanism Service Technical Information".

P06L002

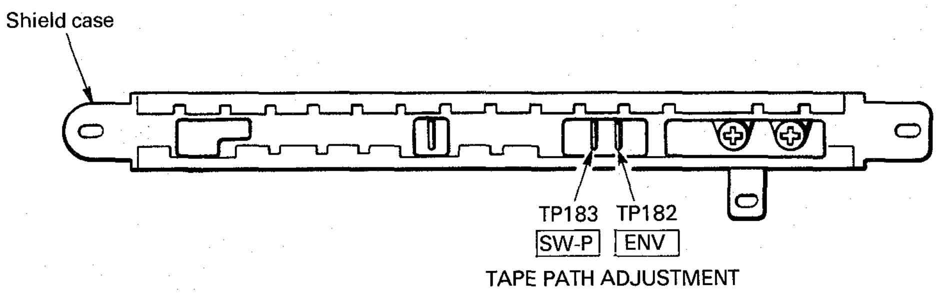

Shield case
TP183
TP182
SW-P
ENV
TAPE PATH ADJUSTMENT

Fig. 1-2 Pre-amp Unit

2. ELECTRICAL ADJUSTMENT

2-1. PREPARATION

2-1-1. EQUIPMENT

- Colour TV monitor
- PAL Colour-bar generator (with RF and LINE OUTPUT)
- Audio signal generator
- Oscilloscope (dual trace; frequency response: 10MHz or more; probe: 10:1)
- Frequency counter (countable to 10MHz or higher)
- Digital voltmeter
- AC voltmeter
- In/output probes
- Alignment cassette (VHJ-0008) PAL Colour bar 1KHz
- Alignment cassette (VHJ-0009) Monoscope 6KHz
- Alignment cassette (VHJ-0051) Check for D.O.C.
- Alignment cassette (VHJ-0023) PAL Monoscope 6KHz, PAL Colour-bar 1KHz, SECAM Colour-bar 1KHz, PAL RF Sweep MESECAM Colour-bar 1KHz, NTSC Colour-bar 1KHz.
- Relay jig (VHJ-0066) 7-wire cable for Pre-amp unit
  Connect the Flat cable end from the Drum assembly to the Pre-amp unit using the Relay jig to provide simple repairing and adjustment of the Pre-amp unit, as shown in Fig. 2-1-1. Further, when adjusting the Pre-amp unit, be sure to make contact an end of Shield case with Bracket of the Pre-amp unit to maintain the shield effect.
- Extension relay jig (VHJ-0079) for CP-1 PCB
  Connect between the CP-1 and TM-1 PCB using the Extension relay jig to provide simple repairing and adjustment of the CP-1 PCB, as shown in Fig. 2-1-2. Correctly, connect the Connector from CN304 on the CP-1 PCB to CN005 of the Relay jig, and that from CN001 of the Relay jig to CN711 of the TM-1 PCB. The connector from CN002 of the Relay jig is not required connect.

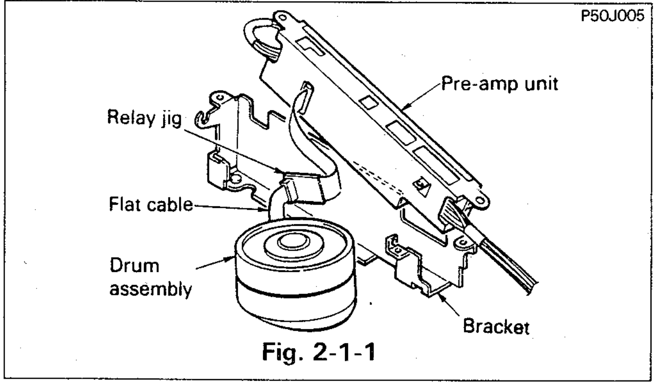

P50J005
Pre-amp unit
Relay jig
Flat cable
Drum assembly
Bracket

Fig. 2-1-1

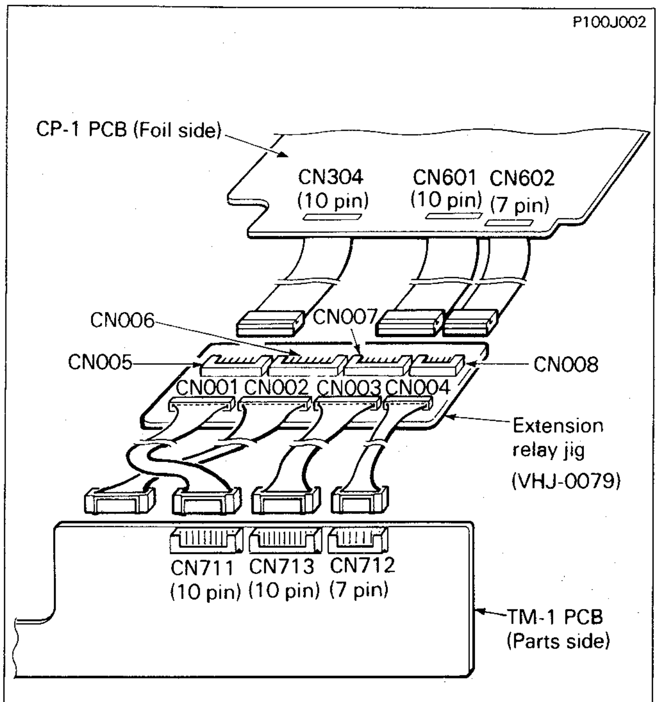

P100J002
CP-1 PCB (Foil side)
CN304 (10 pin)
CN601 (10 pin)
CN602 (7 pin)
CN006
CN007
CN005
CN008
CN001 CN002 CN003 CN004
Extension relay jig (VHJ-0079)
CN711 (10 pin)
CN713 (10 pin)
CN712 (7 pin)
TM-1 PCB (Parts side)

Fig. 2-1-2

2-1-2. SET-UP

Because the RF input signal is used for circuit adjustments, connect the colour-bar generator to the ANT IN terminal of the VCR. The RF input signal is processed by the tuner and IF circuit. It is important that the video output signal of the IF circuit satisfies the items shown in Fig. 2-1-3. Connect the oscilloscope to the VIDEO OUTPUT terminal of the video circuit and terminal with a 75Ω load, and then check the video output signal.

- The amplitude of the sync signal should be approximately 0.3 Vp-p.
- The amplitude of the video signal should be approximately 0.7 Vp-p.
- While observing the oscilloscope or TV screen, make fine-tuning adjustments so that the colour burst amplitude is approximately 0.3 Vp-p.
- Check to be sure that there is no spike noise in the sync part of the horizontal sync signal.

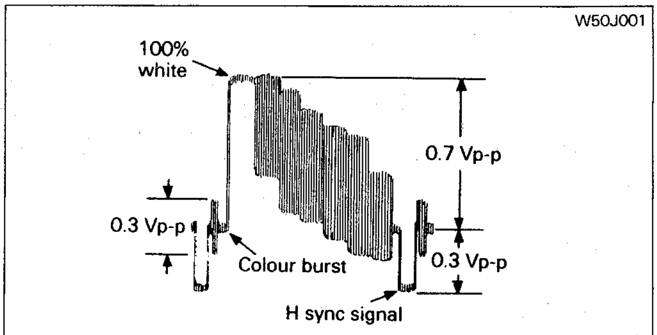


Fig. 2-1-3

2-2. SERVO CIRCUIT ADJUSTMENT ..... CP-1 PCB

NOTE (1) : These adjustments should be carried out upon completion of the transport adjustments.

(2) : If the tape transport adjustments are carried out after these adjustments, follow the procedures again in SWITCHING POSITIONS.

(3) : When adjustment No.4 and No. 5 below, set the SP/LP select switch to the LP position for the model that installed with TAPE SPEED SELECTOR.

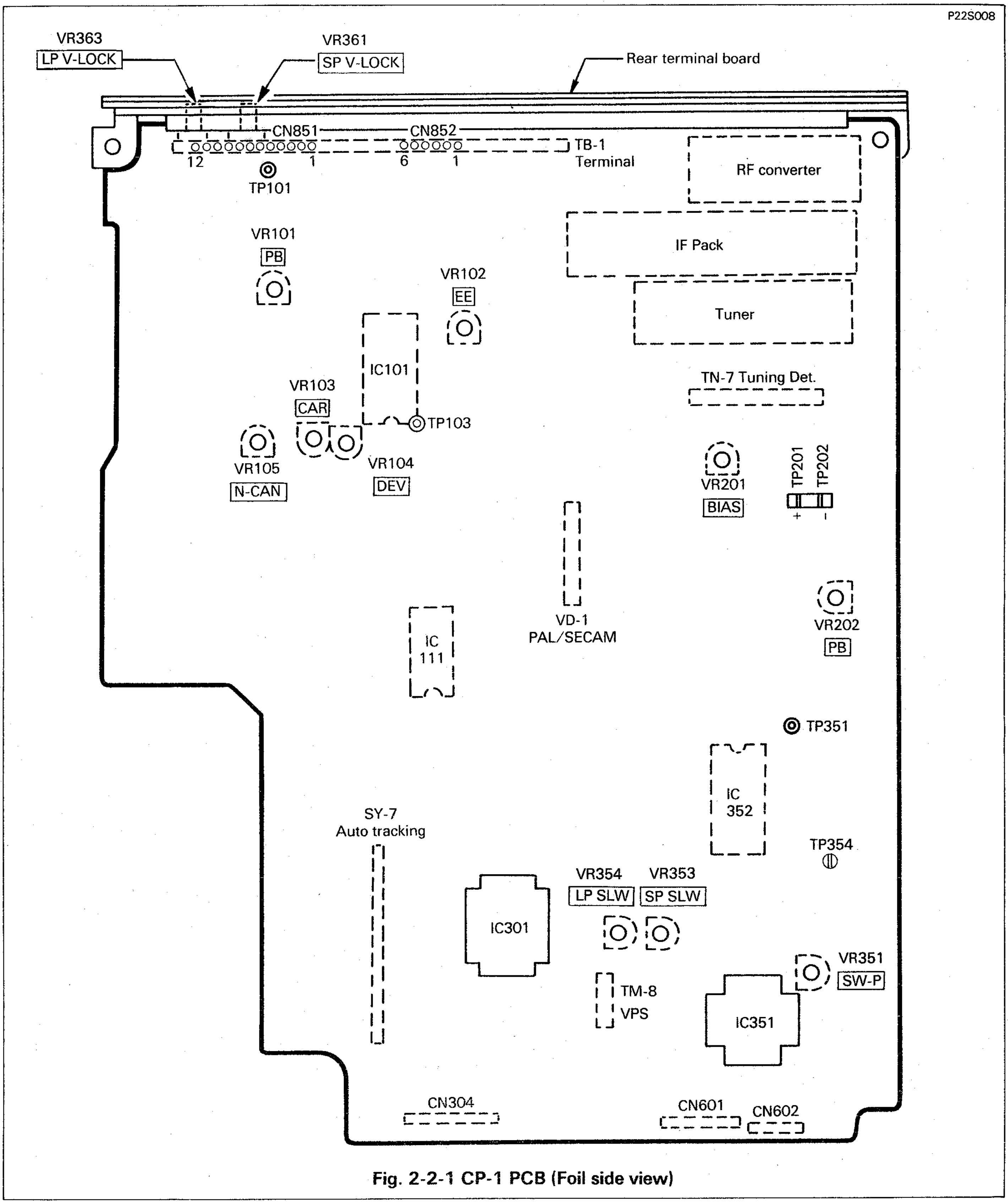
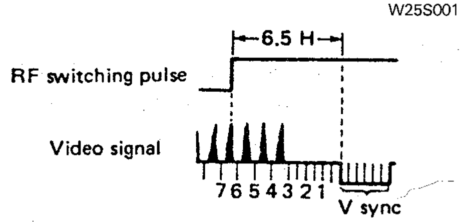
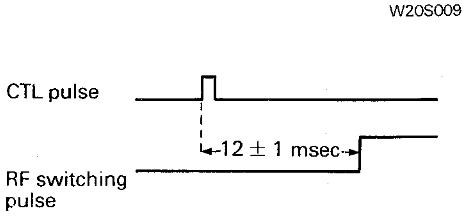
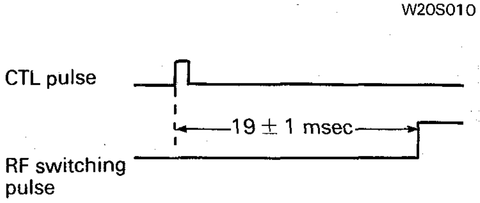

P22S008
VR363
LP V-LOCK
VR361
SP V-LOCK
Rear terminal board
CN851
CN852
12
1
6
1
TB-1
Terminal
TP101
RF converter
IF Pack
Tuner
VR101
PB
VR102
EE
IC101
VR103
CAR
TP103
VR105
N-CAN
VR104
DEV
TN-7 Tuning Det.
VR201
BIAS
TP201
TP202
+
-
VD-1
PAL/SECAM
IC
111
VR202
PB
TP351
IC
352
SY-7
Auto tracking
TP354
VR354
LP SLW
VR353
SP SLW
IC301
VR351
SW-P
TM-8
VPS
IC351
CN304
CN601
CN602

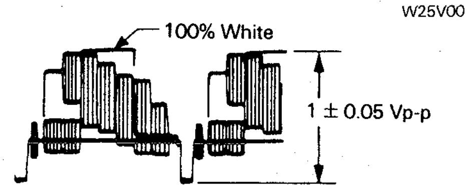
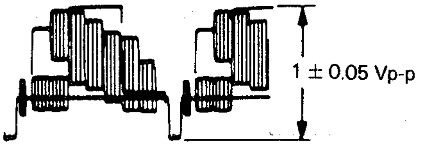
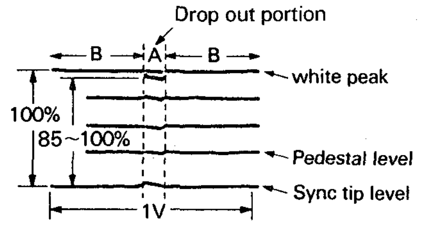
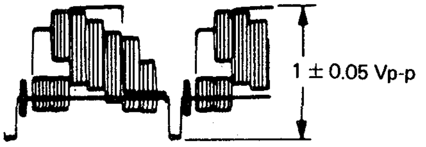
Fig. 2-2-1 CP-1 PCB (Foil side view)

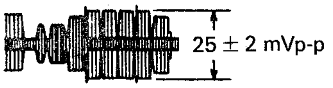
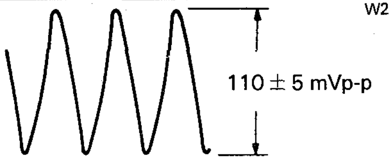
No.	Item	Input	Mode	Point	Location	Remark
1	SWITCHING POSITION	Alignment cassette (VHJ-0009 or VHJ-0023)	PLAY (SP mode)	VIDEO OUTPUT TP101 RF SW pulse TP351	VR351	 W25S001 6.5 H RF switching pulse Video signal 7 6 5 4 3 2 1 V sync 1. Press the tracking control (+) (–) buttons simultaneously to the center position (on the display "T —:— "). 2. Adjust VR351 so that the phase of the leading edge of the vertical sync signal is delayed 6.5 ± 0.5 H from the rise of the RF switching pulse waveform.
2	STILL V-LOCK for SP MODE	Colour bar from Colour bar generator	REC ↓ PLAY ↓ STILL (SP mode)	TV screen	VR361 Rear panel	1. Put the VCR in the REC (SP) mode and record at the middle of the cassette tape. 2. Playback the recorded part, and put the VCR in the STILL (SP) mode. 3. Adjust VR361 so that the V jitter (very fine movement of the vertical sync) is minimized.
3	SLOW TRACKING for SP MODE	Colour bar from Colour bar generator	REC ↓ PLAY ↓ SLOW (SP mode)	TP351 RF SW Pulse TP354 CTL Pulse	VR353	 1. Playback the recorded part, and VCR in the SLOW (SP) mode by remote control unit. 2. Press the tracking control (+) (–) buttons simultaneously to the center position (on the display "T —:— "). 3. Adjust VR353 so that there is a trigger of the peak level of the positive pulse reading edge of the CTL pulse and the time from this point to the leading edge of the RF switching pulse is 12 ± 1 msec. 4. Confirm that the noise at the "+" and "–" terminals for tracking adjustment is same at the upper and lower edges of the screen. If not, readjust VR353.
4	STILL V-LOCK for LP MODE	Colour bar from Colour bar generator	REC ↓ PLAY ↓ STILL (LP mode)	TV screen	VR363 Rear panel	1. Put the VCR in the REC (LP) mode and record at the middle of the cassette tape. 2. Playback the recorded part, and put the VCR in the STILL (LP) mode. 3. Adjust VR363 so that the V jitter (very fine movement of the vertical sync) is minimized.

No.	Item	Input	Mode	Point	Location	Remark
5	SLOW TRACKING for LP MODE	Colour bar from Colour bar generator	REC ↓ PLAY ↓ SLOW (LP mode)	TP351 RF SW Pulse TP354 CTL Pulse	VR354	 1. Playback the recorded part, and VCR in the SLOW (LP) mode by remote control unit. 2. Press the tracking control (+) (–) buttons simultaneously to the center position (on the display "T —:— "). 3. Adjust VR354 so that there is a trigger of the peak level of the positive pulse reading edge of the CTL pulse and the time from this point to the leading edge of the RF switching pulse is 19 ± 1 msec. 4. Confirm that the noise at the "+" and "–" terminals for tracking adjustment is same at the upper and lower edges of the screen. If not, readjust VR354.

2-3. VIDEO CIRCUIT ADJUSTMENT ... CP-1 PCB and VP-1 Pre-amp Unit

NOTE (1) : When adjustment No. 1, No. 2 and No. 5 below, terminate VIDEO OUTPUT TP101 at 75 ohms.
(2) : Adjustment No. 3 below, should be performed after stabilizing the circuit operation. (At least 5 minutes after VCR power on.)
(3) : 'No-signal REC mode' is not to supply any signal to VIDEO INPUT terminal.
(4) : Use the Relay jig mentiond in the 2-1. PREPARATION to provide easy adjustment of the Pre-amp unit.

No.	Item	Input	Mode	Point	Location	Remark
1	E-E LEVEL	Colour bar (100% white level) from Colour bar generator	E-E	VIDEO OUTPUT TP101 (CP-1 PCB)	VR102	W25V001  1. Adjust VR102 so that the level is 1.00 ± 0.05 Vp-p.
2	PB-Y LEVEL	Alignment cassette (VHJ-0008 or VHJ-0023)	PLAY	VIDEO OUTPUT TP101 (CP-1 PCB)	VR101	W20V003  1. Adjust VR101 so that the level is 1.00 ± 0.05 Vp-p.
3	N-CAN LEVEL	Alignment cassette (VHJ-0051)	PLAY	VIDEO OUTPUT TP101 (CP-1 PCB)	VR105	W30V005  Drop out portion B A B white peak 100% 85~100% Pedestal level Sync tip level 1V 1. Set the horizontal scale (TIME/DIV) of the oscilloscope to 1 msec./div.. 2. Adjust VR105 so that the white peak level at drop out portion "A" becomes 85 ~ 100% for the white peak level of no drop out portion "B".
4	CARRIER SET	No-signal	REC	TP103 (CP-1 PCB)	VR103	1. Set the channel selector buttons to the AV position and put the VCR in the no-signal REC mode. 2. Adjust VR103 so that the frequency is 3.80 ± 0.05 MHz.
5	DEVIATION	Colour bar (100% white level) from Colour bar generator	REC (Adjust-ment) ↓ PLAY (Check)	VIDEO OUTPUT TP101 (CP-1 PCB)	VR104	W20V003  1. Insert the blank tape to the VCR and record colour bar signal. 2. Playback the recorded part, and check that the level is 1.00 ± 0.05 Vp-p. 3. Repeat adjust VR104 before the record, and the playback it, if not satisfactory.

No.	Item	Input	Mode	Point	Location	Remark
6	C REC CURRENT	*Colour bar from Colour bar generator*	REC	TP181 (HOT) shield case (GND) (Pre-amp unit)	VR181	 1. Set the SP/LP select switch to the LP position. 2. Rotate VR182 so that the luminance level is minimize. 3. Adjust VR181 so that the level is 25 ± 2 mVp-p.
7	Y REC CURRENT	No-signal	REC	TP181 (HOT) shield case (GND) (Pre-amp unit)	VR182	 1. Set the SP/LP select switch to the LP position. 2. Set the channel selector buttons to AV position and put the VCR in the no-signal REC mode. 3. Adjust VR182 so that the level is 110 ± 5 mVp-p.

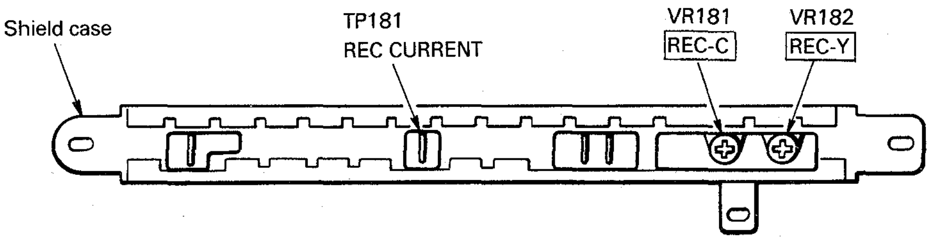


Fig. 2-3-1 Pre-amp Unit

2-4. AUDIO CIRCUIT ADJUSTMENT ... CP-1 PCB

NOTE (1): 'No-signal record mode' is not to supply any signal to AUDIO INPUT terminal.
NOTE (2): Item No. 2 apply to the model that equipped with 21 pin SCART on the rear terminal board.
NOTE (3): Item No. 3 apply to the model that equipped with RCA pin jack on the rear terminal board.

No.	Item	Input	Mode	Point	Location	Remark
1	BIAS LEVEL	No-signal	REC	TP201 TP202 (GND)	VR201	1. Set the channel selector buttons to the AV position and put the VCR in the no-signal REC mode. 2. Adjust VR201 so that the level is 20 mVrms.
2	REC/PB OUTPUT LEVEL	Audio signal (1 KHz, -3.8 dBm) from Audio signal generator	REC ↓ PLAY	AUDIO OUTPUT CN852 pin 5	VR202	1. Adjust VR202 so that the recorded 1 KHz output level becomes -3.8 dBm in the PLAY mode.
3	REC/PB OUTPUT LEVEL	Audio signal (1 KHz, -8 dBm) from Audio signal generator	REC ↓ PLAY	AUDIO OUTPUT terminal	VR202	1. Adjust VR202 so that the recorded 1 KHz output level becomes -8 dBm in the PLAY mode.

2-5. TUNER IF CIRCUIT ADJUSTMENT ... IF Pack

NOTE: When performing the adjustment for the type B model, be sure to remove the rear terminal board fro CP-1 PCB (see Fig. 2-2-1 on page 3).

No.	Item	Input	Mode	Point	Location	Remark
1	RF AGC	TV broadcast	E-E	TV screen	VR611	1. Turn VR611 in the direction which causes snow to appear, then in the opposite direction until the snow just disappears.

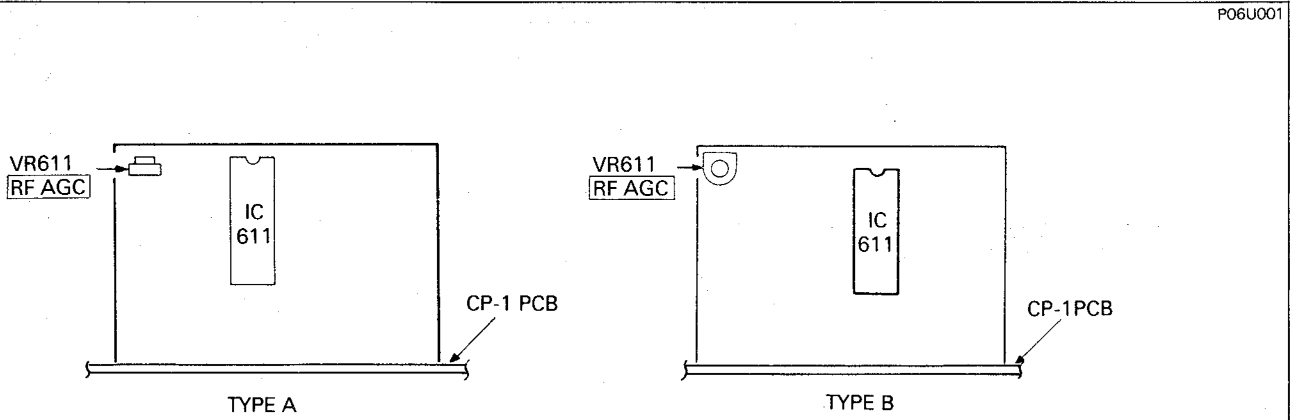


Fig. 2-5-1 IF Pack (Parts side view)

2-6. VIDEO TEXT DECODER CIRCUIT ADJUSTMENT ... TM-6 PCB

No.	Item	Input	Mode	Point	Location	Remark
1	DECODER VXO	NONE	E-E	TP761 TP762 (GND)	CT761	1. Set the vartical scale (VOLTAGE/DIV.) of the oscilloscope to 10 mV/DIV.. 2. Connect the frequency counter to TP761 and TP762 through a pre-amp of the above oscilloscope. 3. Adjust CT761 so that the frequency is 4433610 ± 10 Hz.

P08X001

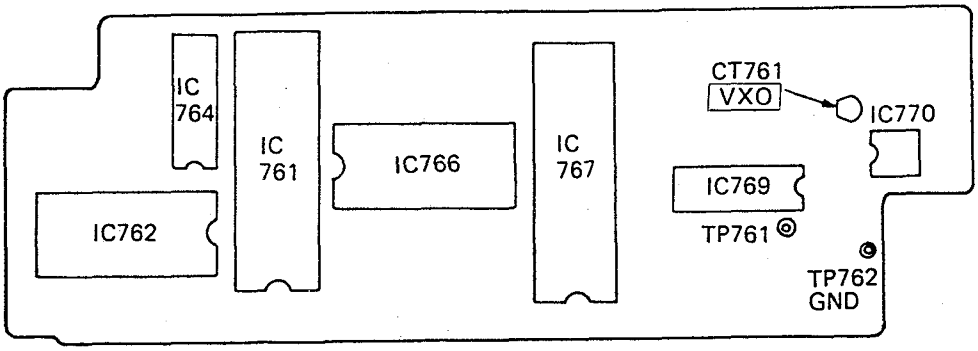

IC 764
IC 761
IC762
IC766
IC 767
CT761
VXO
IC770
IC769
TP761
TP762
GND

Fig. 2-6-1 TM-6 PCB (Parts side view)

SAN

1 / SMVHR-7500G / / 0850

HL06F202 / SERVICE MANUAL

June/'90/4400 HA Printed in Japan

SANYO

SANYO Electric Co., Ltd.
Osaka, Japan

BLOCK DIAGRAMS, CIRCUIT DIAGRAMS & PRINTED CIRCUIT BOARD

VHR-7500G
VHR-7530G (West Germany)
VHR-7540G
VHR-7500EX (General Europe)
VHR-8500SP (Spain)

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CP-1 BOARD (PW-A) POWER SUPPLY CIRCUIT DIAGRAM 10

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IF CIRCUIT DIAGRAM & P.C.B. 34

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IR REMOTE CONTROL CIRCUIT DIAGRAM (VHR-7540G) 51

IR REMOTE CONTROL CIRCUIT DIAGRAM (VHR-7500G, VHR-7500EX, VHR-7530G, VHR-8500SP) 53

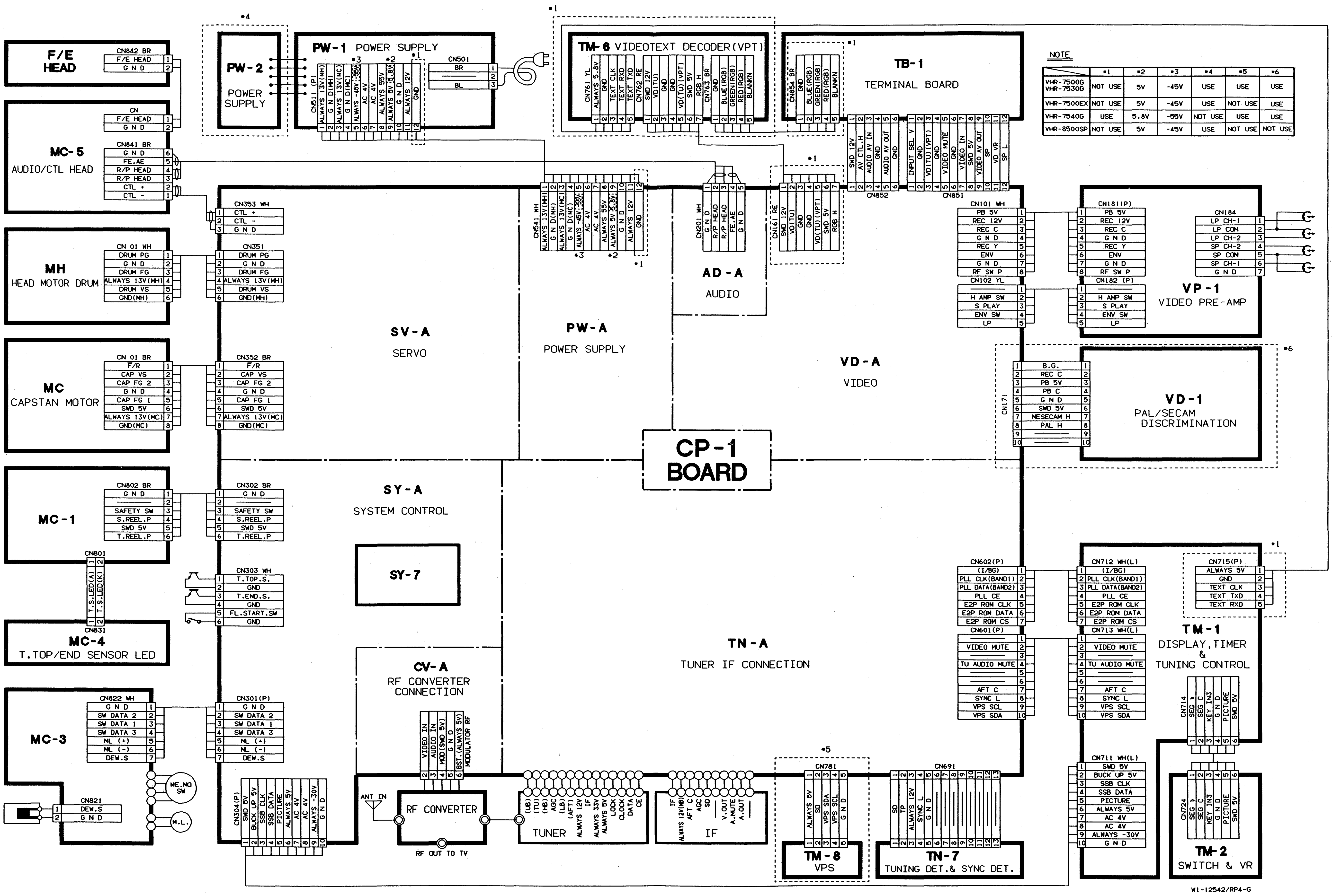
NOTES:

1. All resistance values in "OHMS" unless otherwise noted. (K = 1,000 M = 1,000,000)
2. All capacitance values in "μfd" unless otherwise noted. p = pico farad
3. All inductance values in "mH" unless otherwise noted. μ = micro henry

PRODUCT SAFETY NOTICE

THE COMPONENTS DESIGNATED BY A SYMBOL (⚠) IN THIS SCHEMATIC DIAGRAM DESIGNATES COMPONENTS WHOSE VALUE ARE OF SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. SHOULD ANY COMPONENT DESIGNATED BY A SIMBOL NEED TO BE REPLACED, USE ONLY THE PART DESIGNATED IN THE PARTS LIST. DO NOT DEVIATE FROM THE RESISTANCE, WATTAGE AND VOLTAGE RATINGS SHOWN.

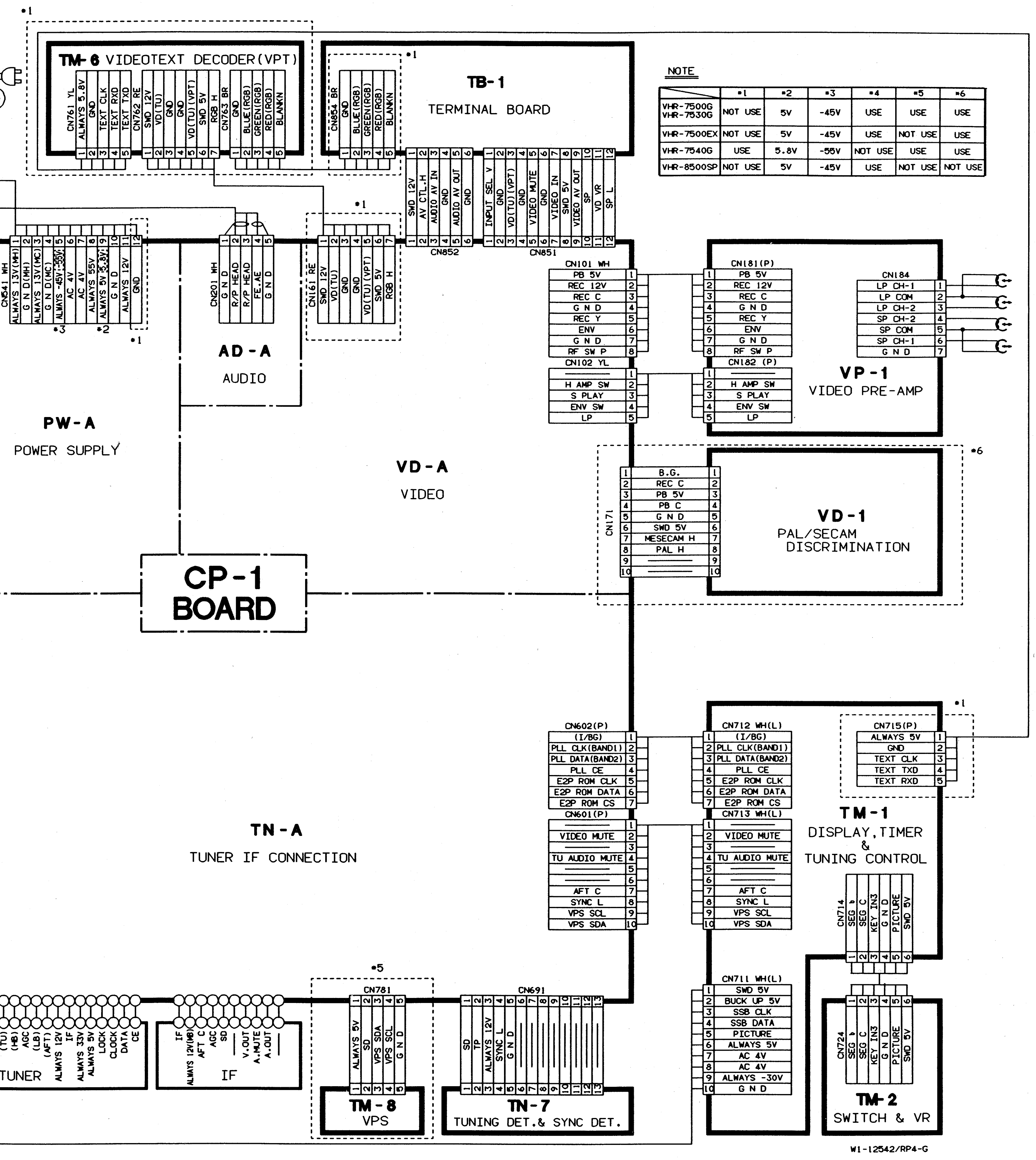
OVERALL WIRING DIAGRAM


F/E HEAD
CN842 BR
MC-5
AUDIO/CTL HEAD
CN841 BR
MH
HEAD MOTOR DRUM
CN 01 WH
MC
CAPSTAN MOTOR
CN 01 BR
MC-1
CN802 BR
CN801
CN831
MC-4
T.TOP/END SENSOR LED
MC-3
CN822 WH
CN821
ME.MO SW
M.L.
PW-2
POWER SUPPLY
PW-1 POWER SUPPLY
CN511 (P)
CN501
TM-6 VIDEOTEXT DECODER(VPT)
CN761 YL
CN762 RE
CN763 BR
TB-1
TERMINAL BOARD
CN854 BR
CN852
CN851
CN353 WH
CN351
CN352 BR
CN302 BR
CN303 WH
CN301(P)
CN304(P)
CN541 WH
CN201 WH
CN161 RE
SV-A
SERVO
PW-A
POWER SUPPLY
AD-A
AUDIO
VD-A
VIDEO
SY-A
SYSTEM CONTROL
SY-7
CP-1
BOARD
CV-A
RF CONVERTER
CONNECTION
ANT IN
RF CONVERTER
RF OUT TO TV
TUNER
IF
TN-A
TUNER IF CONNECTION
CN101 WH
CN102 YL
CN181(P)
CN182 (P)
CN184
VP-1
VIDEO PRE-AMP
CN171
VD-1
PAL/SECAM
DISCRIMINATION
CN602(P)
CN601(P)
CN712 WH(L)
CN713 WH(L)
CN715(P)
TM-1
DISPLAY,TIMER
&
TUNING CONTROL
CN714
CN711 WH(L)
CN724
TM-2
SWITCH & VR
CN781
TM-8
VPS
CN691
TN-7
TUNING DET.& SYNC DET.
W1-12542/RP4-G
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

NOTE

	*1	*2	*3	*4	*5	*6
VHR-7500G VHR-7530G	NOT USE	5V	-45V	USE	USE	USE
VHR-7500EX	NOT USE	5V	-45V	USE	NOT USE	USE
VHR-7540G	USE	5.8V	-55V	NOT USE	USE	USE
VHR-8500SP	NOT USE	5V	-45V	USE	NOT USE	NOT USE

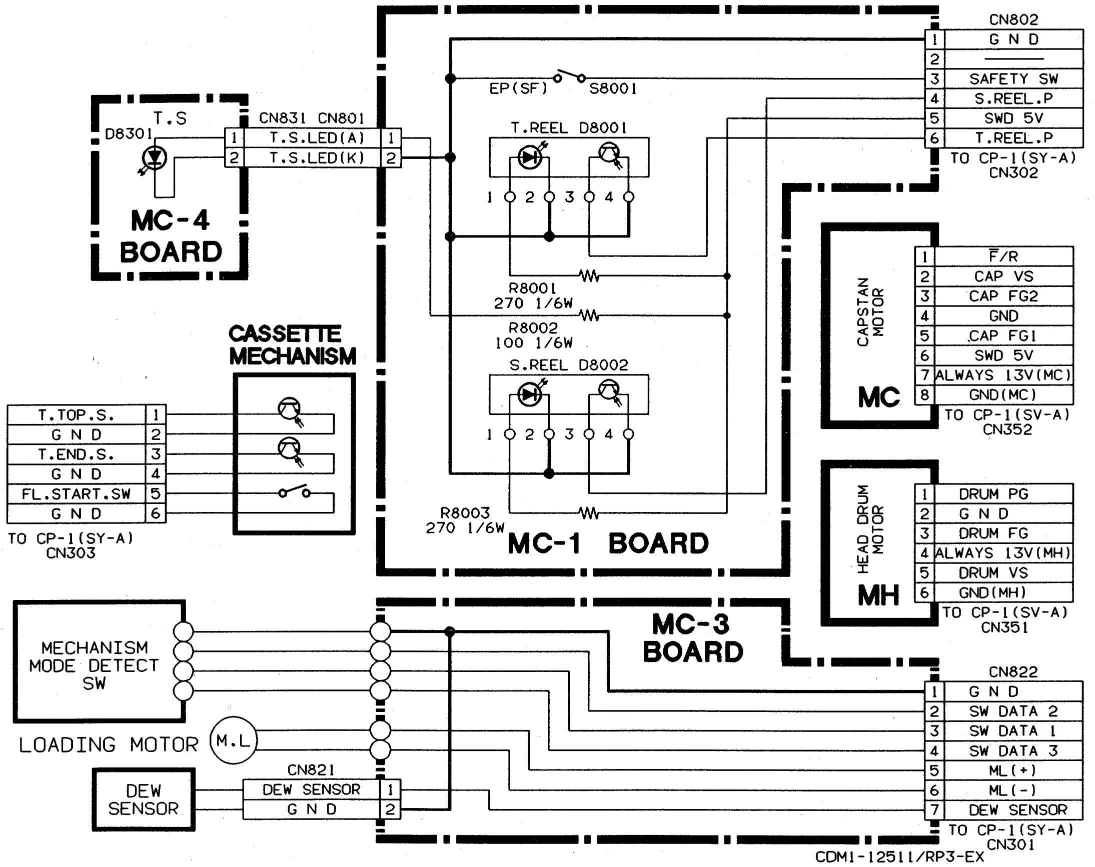
L WIRING DIAGRAM


TM-6 VIDEOTEXT DECODER(VPT)
TB-1
TERMINAL BOARD
CN852
CN851
PW-A
POWER SUPPLY
AD-A
AUDIO
VD-A
VIDEO
CP-1
BOARD
VP-1
VIDEO PRE-AMP
VD-1
PAL/SECAM
DISCRIMINATION
CN171
CN101 WH
CN102 YL
CN181(P)
CN182 (P)
CN184
CN541 WH
CN201 WH
CN161 RE
CN761 YL
CN762 RE
CN763 BR
CN854 BR
TN-A
TUNER IF CONNECTION
CN602(P)
CN601(P)
CN712 WH(L)
CN713 WH(L)
CN711 WH(L)
CN715(P)
TM-1
DISPLAY, TIMER
&
TUNING CONTROL
CN714
CN724
TM-2
SWITCH & VR
CN781
TM-8
VPS
CN691
TN-7
TUNING DET.& SYNC DET.
TUNER
IF
W1-12542/RP4-G

NOTE

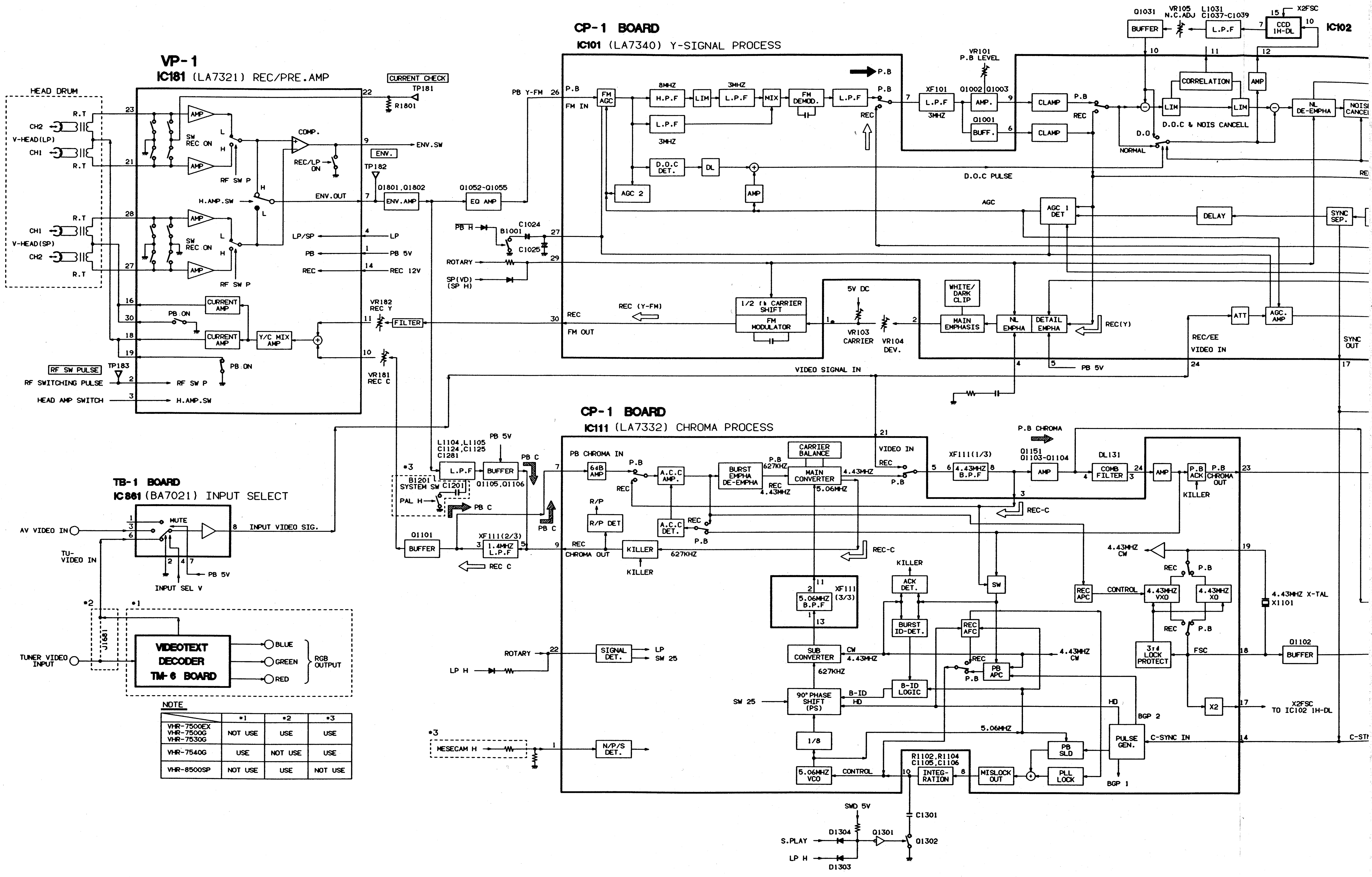
	*1	*2	*3	*4	*5	*6
VHR-7500G VHR-7530G	NOT USE	5V	-45V	USE	USE	USE
VHR-7500EX	NOT USE	5V	-45V	USE	NOT USE	USE
VHR-7540G	USE	5.8V	-55V	NOT USE	USE	USE
VHR-8500SP	NOT USE	5V	-45V	USE	NOT USE	NOT USE

MECHANISM CONNECTION CIRCUIT DIAGRAM


MC-4
BOARD
T.S
D8301
CN831 CN801
T.S.LED(A)
T.S.LED(K)
CASSETTE
MECHANISM
T.TOP.S.
G N D
T.END.S.
G N D
FL.START.SW
G N D
TO CP-1(SY-A)
CN303
EP(SF)
S8001
T.REEL D8001
R8001
270 1/6W
R8002
100 1/6W
S.REEL D8002
R8003
270 1/6W
MC-1 BOARD
CN802
G N D
SAFETY SW
S.REEL.P
SWD 5V
T.REEL.P
TO CP-1(SY-A)
CN302
CAPSTAN MOTOR
MC
F/R
CAP VS
CAP FG2
GND
CAP FG1
SWD 5V
ALWAYS 13V(MC)
GND(MC)
TO CP-1(SV-A)
CN352
HEAD DRUM MOTOR
MH
DRUM PG
G N D
DRUM FG
ALWAYS 13V(MH)
DRUM VS
GND(MH)
TO CP-1(SV-A)
CN351
MC-3
BOARD
MECHANISM MODE DETECT SW
LOADING MOTOR
M.L
DEW SENSOR
CN821
DEW SENSOR
G N D
CN822
G N D
SW DATA 2
SW DATA 1
SW DATA 3
ML(+)
ML(-)
DEW SENSOR
TO CP-1(SY-A)
CN301
CDM1-12511/RP3-EX

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

VIDEO CIRCUIT BASIC BLOCK DIAGRAM



CP-1 BOARD
IC101 (LA7340) Y-SIGNAL PROCESS
VP-1
IC181 (LA7321) REC/PRE.AMP
HEAD DRUM
V-HEAD(LP)
V-HEAD(SP)
CH1
CH2
R.T
AMP
SW REC ON
COMP.
RF SW P
H.AMP.SW
ENV.OUT
ENV.SW
ENV.
REC/LP ON
CURRENT CHECK
TP181
R1801
TP182
Q1801,Q1802
ENV.AMP
Q1052-Q1055
EQ AMP
LP/SP
LP
PB
PB 5V
REC
REC 12V
CURRENT AMP
PB ON
Y/C MIX AMP
VR182 REC Y
FILTER
VR181 REC C
RF SW PULSE
TP183
RF SWITCHING PULSE
HEAD AMP SWITCH
RF SW P
H.AMP.SW
PB Y-FM
P.B
FM IN
FM AGC
8MHZ
H.P.F
LIM
3MHZ
L.P.F
MIX
FM DEMOD.
D.O.C DET.
DL
AGC 2
AMP
PB H
B1001
C1024
C1025
ROTARY
SP(VD) (SP H)
REC (Y-FM)
REC
FM OUT
1/2 fH CARRIER SHIFT
FM MODULATOR
5V DC
VR103 CARRIER
VR104 DEV.
WHITE/DARK CLIP
MAIN EMPHASIS
NL EMPHA
DETAIL EMPHA
REC(Y)
VR101 P.B LEVEL
XF101
Q1002,Q1003
Q1001
AMP.
BUFF.
CLAMP
D.O.C PULSE
AGC
AGC 1 DET
DELAY
SYNC SEP.
CORRELATION
D.O.C & NOIS CANCELL
D.O
NORMAL
NL DE-EMPHA
NOISE CANCEL
ATT
AGC. AMP
REC/EE VIDEO IN
SYNC OUT
VIDEO SIGNAL IN
PB 5V
Q1031
VR105 N.C.ADJ
L1031 C1037-C1039
BUFFER
CCD 1H-DL
X2FSC
IC102
CP-1 BOARD
IC111 (LA7332) CHROMA PROCESS
PB CHROMA IN
64B AMP
A.C.C AMP.
BURST EMPHA DE-EMPHA
CARRIER BALANCE
MAIN CONVERTER
P.B 627KHZ
REC 4.43MHZ
5.06MHZ
4.43MHZ
VIDEO IN
XF111(1/3)
4.43MHZ B.P.F
Q1151 Q1103-Q1104
P.B CHROMA
DL131
COMB FILTER
ACK
P.B CHROMA OUT
KILLER
REC-C
R/P
R/P DET
A.C.C DET.
KILLER
627KHZ
CHROMA OUT
L1104,L1105 C1124,C1125 C1281
BUFFER
Q1105,Q1106
PB C
B1201 SYSTEM SW
C1201
PAL H
Q1101
XF111(2/3)
1.4MHZ L.P.F
REC C
XF111 (3/3)
5.06MHZ B.P.F
ACK DET.
SW
BURST ID-DET.
REC AFC
REC APC
CONTROL
4.43MHZ VXO
4.43MHZ XO
4.43MHZ CW
4.43MHZ X-TAL X1101
3rd LOCK PROTECT
FSC
Q1102
X2
X2FSC TO IC102 1H-DL
SUB CONVERTER
CW
PB APC
B-ID LOGIC
90° PHASE SHIFT (PS)
B-ID
HD
SW 25
1/8
5.06MHZ VCO
R1102,R1104 C1105,C1106
INTEG-RATION
MISLOCK OUT
PLL LOCK
PB SLD
PULSE GEN.
BGP 2
BGP 1
C-SYNC IN
C-SYNC
SIGNAL DET.
LP H
N/P/S DET.
MESECAM H
C1301
SWD 5V
D1304
Q1301
Q1302
S.PLAY
D1303
TB-1 BOARD
IC861 (BA7021) INPUT SELECT
AV VIDEO IN
TU-VIDEO IN
MUTE
INPUT VIDEO SIG.
INPUT SEL V
TUNER VIDEO INPUT
J1681
VIDEOTEXT DECODER TM-6 BOARD
BLUE
GREEN
RED
RGB OUTPUT
*1
*2
*3
K
J
I
H
G
F
E
D
C
B
A
1
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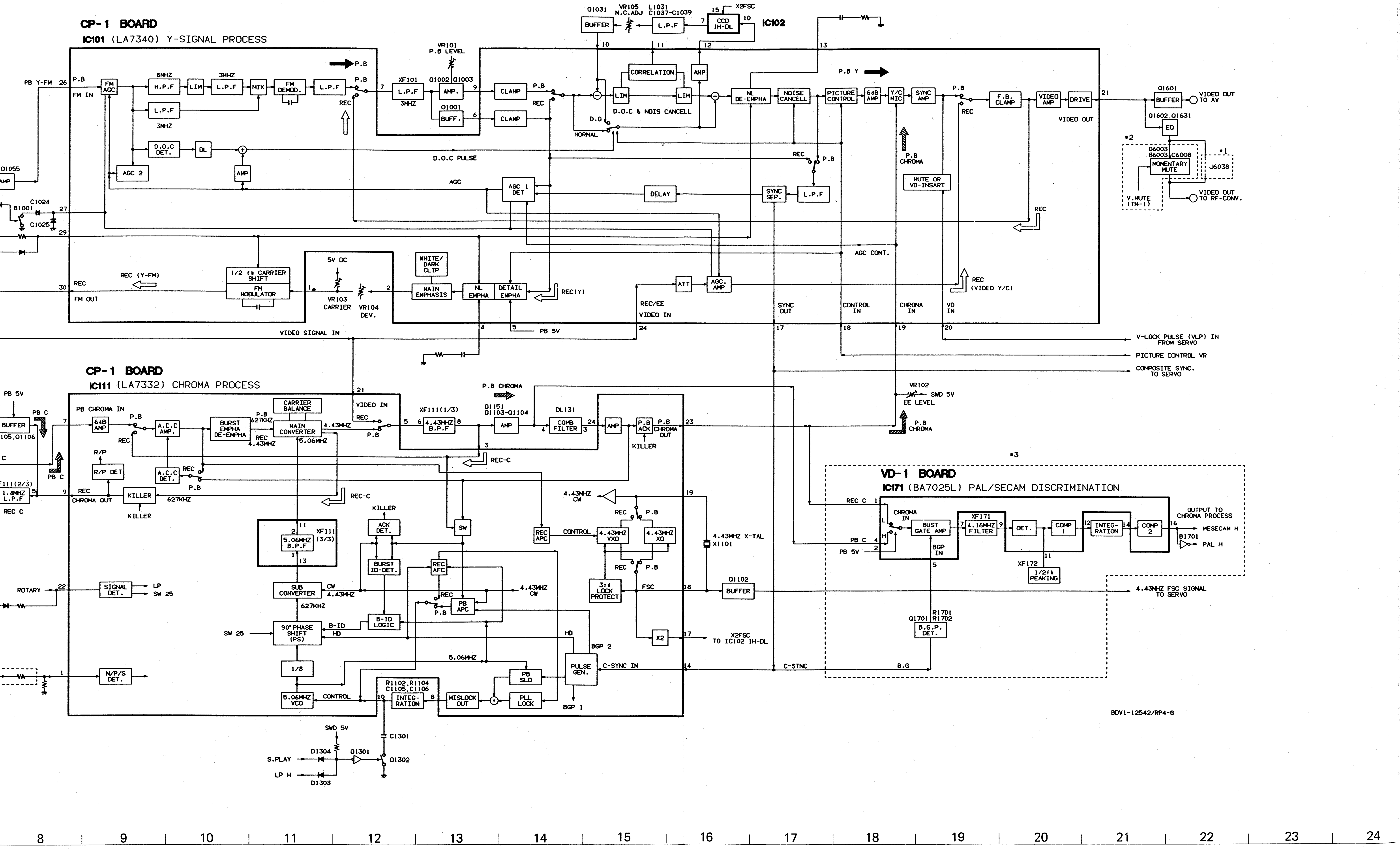
17

NOTE

	*1	*2	*3
VHR-7500EX VHR-7500G VHR-7530G	NOT USE	USE	USE
VHR-7540G	USE	NOT USE	USE
VHR-8500SP	NOT USE	USE	NOT USE

VIDEO CIRCUIT BASIC BLOCK DIAGRAM


CP-1 BOARD
IC101 (LA7340) Y-SIGNAL PROCESS
PB Y-FM
P.B
FM IN
FM AGC
8MHZ
H.P.F
LIM
3MHZ
L.P.F
MIX
FM DEMOD.
L.P.F
P.B
REC
XF101
L.P.F
3MHZ
Q1002
Q1003
AMP.
Q1001
BUFF.
CLAMP
CLAMP
VR101
P.B LEVEL
Q1031
BUFFER
VR105
N.C.ADJ
L1031
C1037-C1039
L.P.F
CCD
1H-DL
X2FSC
IC102
CORRELATION
AMP
LIM
LIM
D.O.C & NOIS CANCELL
D.O
NORMAL
P.B Y
NL DE-EMPHA
NOISE CANCELL
PICTURE CONTROL
6dB AMP
Y/C MIC
SYNC AMP
F.B. CLAMP
VIDEO AMP
DRIVE
VIDEO OUT
Q1601
BUFFER
VIDEO OUT TO AV
Q1602,Q1631
EQ
*2
Q6003
B6003,C6008
MOMENTARY MUTE
*1
J6038
V.MUTE (TM-1)
VIDEO OUT TO RF-CONV.
D.O.C DET.
DL
AMP
AGC 2
D.O.C PULSE
AGC
AGC 1 DET
DELAY
SYNC SEP.
L.P.F
P.B CHROMA
MUTE OR VD-INSART
REC
Q1055
AMP
B1001
C1024
C1025
REC (Y-FM)
1/2 fh CARRIER SHIFT
FM MODULATOR
5V DC
VR103 CARRIER
VR104 DEV.
WHITE/DARK CLIP
MAIN EMPHASIS
NL EMPHA
DETAIL EMPHA
REC(Y)
ATT
AGC. AMP
AGC CONT.
REC (VIDEO Y/C)
REC/EE VIDEO IN
SYNC OUT
CONTROL IN
CHROMA IN
VD IN
FM OUT
PB 5V
VIDEO SIGNAL IN
V-LOCK PULSE (VLP) IN FROM SERVO
PICTURE CONTROL VR
COMPOSITE SYNC. TO SERVO
CP-1 BOARD
IC111 (LA7332) CHROMA PROCESS
PB 5V
PB C
BUFFER
Q1105,Q1106
PB CHROMA IN
6dB AMP
A.C.C AMP.
BURST EMPHA DE-EMPHA
CARRIER BALANCE
MAIN CONVERTER
627KHZ
4.43MHZ
5.06MHZ
VIDEO IN
XF111(1/3)
4.43MHZ B.P.F
Q1151
Q1103-Q1104
AMP
DL131
COMB FILTER
AMP
P.B ACK
P.B CHROMA OUT
KILLER
VR102
SWD 5V
EE LEVEL
REC-C
R/P
R/P DET
A.C.C DET.
REC
KILLER
627KHZ
REC CHROMA OUT
XF111(2/3)
1.4MHZ L.P.F
REC C
REC-C
XF111 (3/3)
5.06MHZ B.P.F
ACK DET.
SW
REC APC
4.43MHZ CW
CONTROL
4.43MHZ VXO
4.43MHZ XO
4.43MHZ X-TAL X1101
BURST ID-DET.
REC AFC
3:4 LOCK PROTECT
FSC
Q1102
BUFFER
4.43MHZ FSC SIGNAL TO SERVO
ROTARY
SIGNAL DET.
LP
SW 25
SUB CONVERTER
CW 4.43MHZ
627KHZ
PB APC
4.43MHZ CW
SW 25
90° PHASE SHIFT (PS)
B-ID
HD
B-ID LOGIC
HD
BGP 2
X2
X2FSC TO IC102 1H-DL
5.06MHZ
1/8
PULSE GEN.
C-SYNC IN
C-STNC
N/P/S DET.
PB SLD
PLL LOCK
5.06MHZ VCO
CONTROL
R1102,R1104
C1105,C1106
INTEG-RATION
MISLOCK OUT
BGP 1
SWD 5V
C1301
D1304
Q1301
Q1302
S.PLAY
LP H
D1303
*3
VD-1 BOARD
IC171 (BA7025L) PAL/SECAM DISCRIMINATION
REC C
PB C
PB 5V
CHROMA IN
BUST GATE AMP
BGP IN
XF171
4.16MHZ FILTER
DET.
COMP 1
INTEG-RATION
COMP 2
OUTPUT TO CHROMA PROCESS
MESECAM H
B1701
PAL H
XF172
1/2fh PEAKING
Q1701
R1701
R1702
B.G.P. DET.
B.G
BDV1-12542/RP4-G
8
9
10
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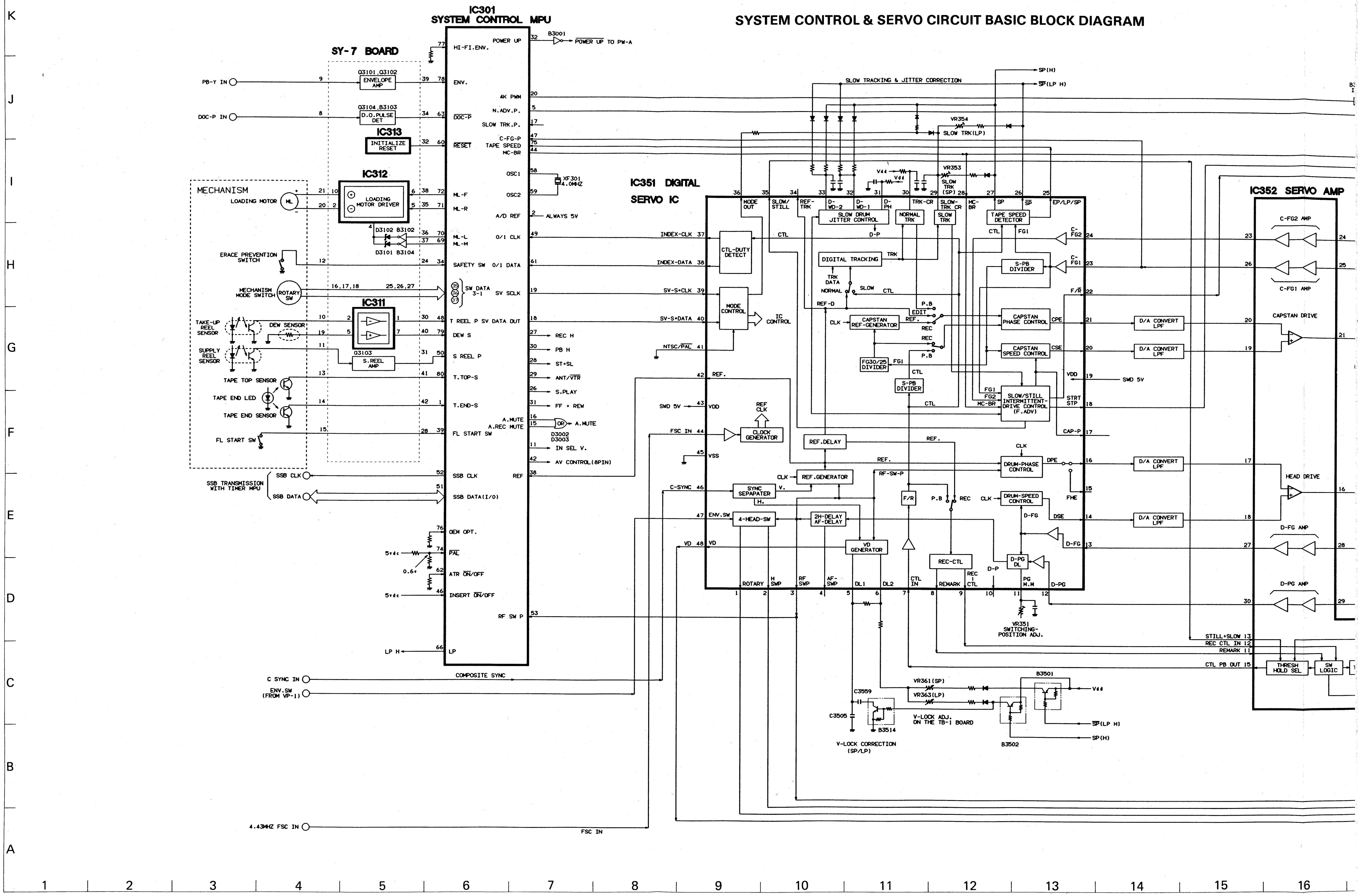
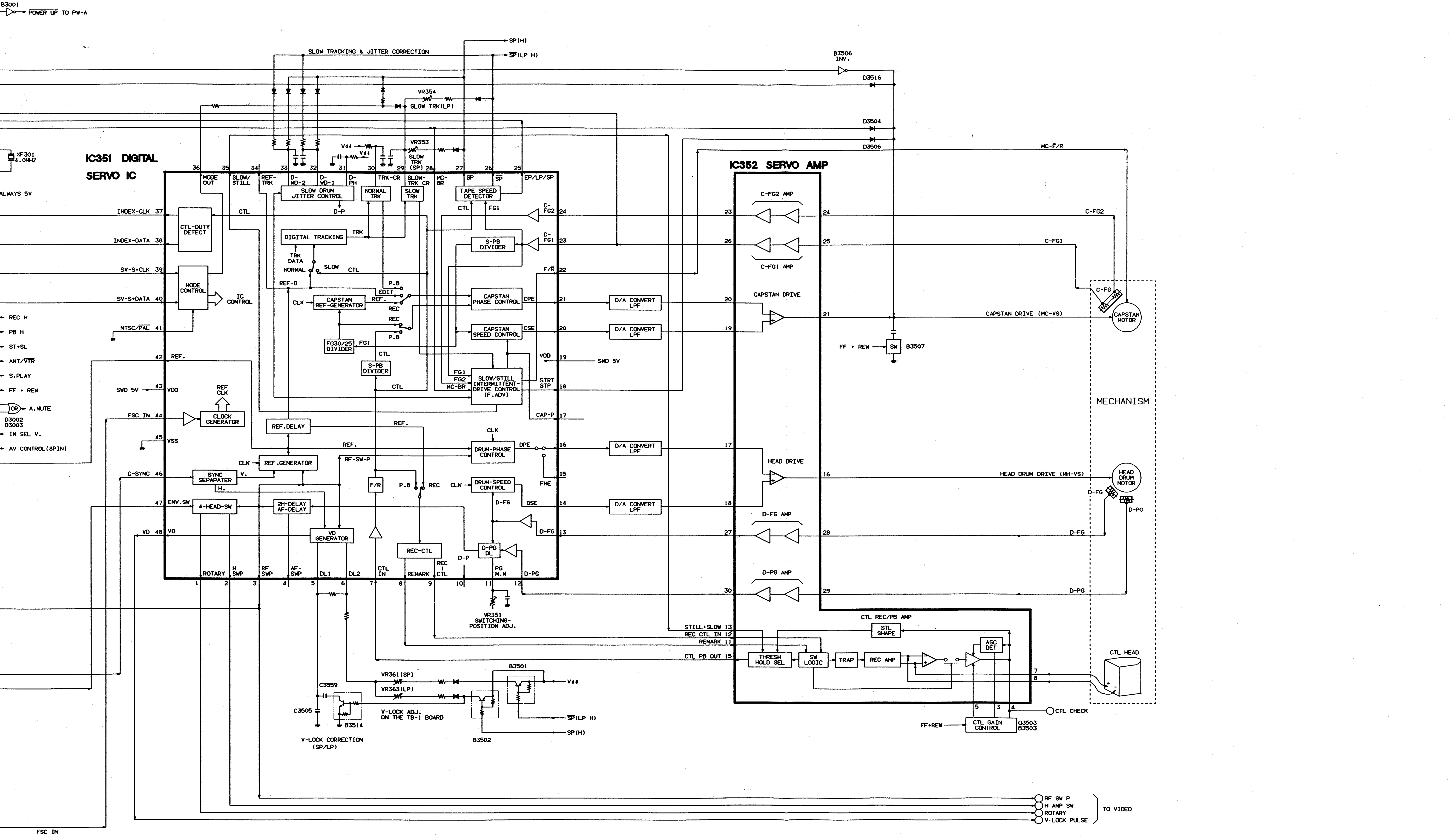
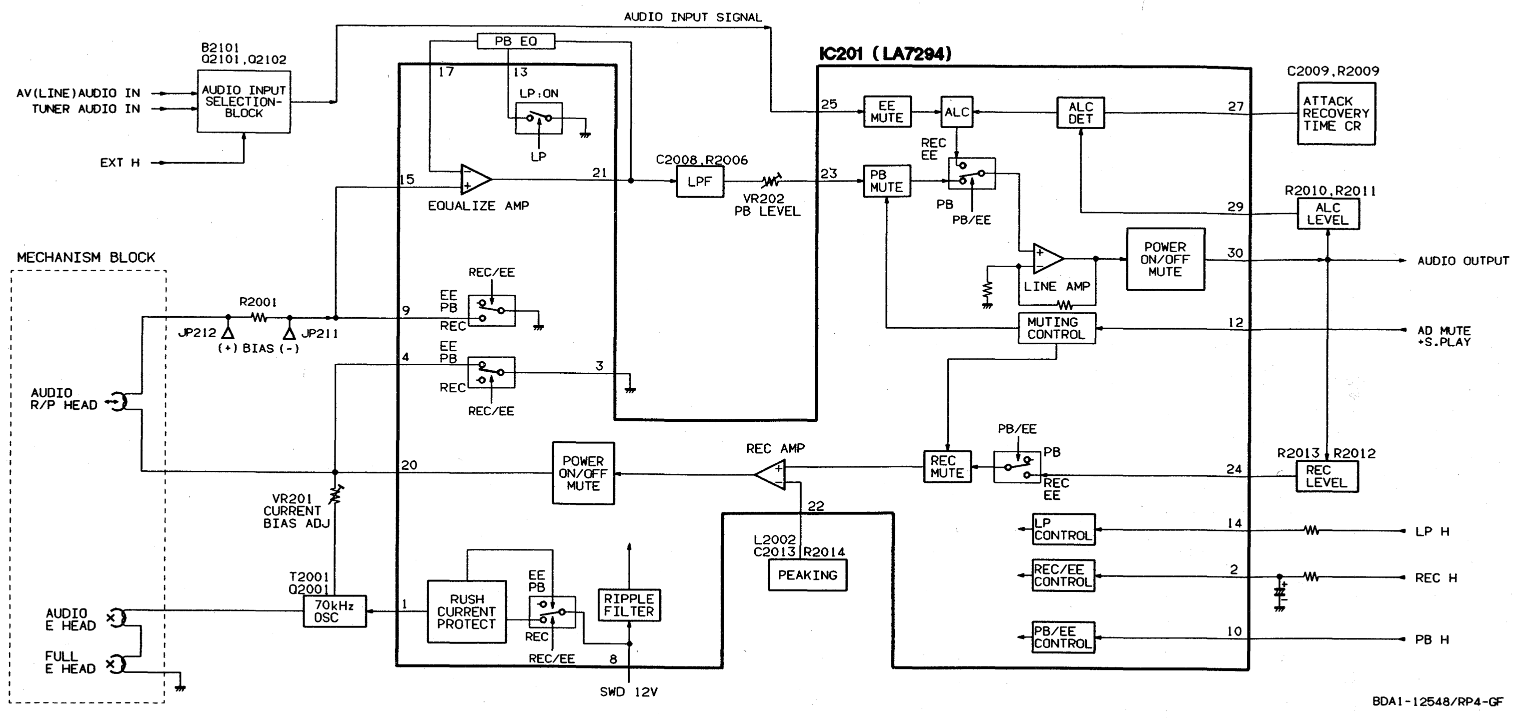
SYSTEM CONTROL & SERVO CIRCUIT BASIC BLOCK DIAGRAM


IC301
SYSTEM CONTROL MPU
SY-7 BOARD
PB-Y IN
DOC-P IN
Q3101,Q3102
ENVELOPE AMP
Q3104,B3103
D.O.PULSE DET
IC313
INITIALIZE RESET
IC312
LOADING MOTOR DRIVER
MECHANISM
LOADING MOTOR
ML
D3102 B3102
D3101 B3104
ERACE PREVENTION SWITCH
MECHANISM MODE SWITCH
ROTARY SW
IC311
TAKE-UP REEL SENSOR
DEW SENSOR
SUPPLY REEL SENSOR
Q3103
S.REEL AMP
TAPE TOP SENSOR
TAPE END LED
TAPE END SENSOR
FL START SW
SSB TRANSMISSION WITH TIMER MPU
SSB CLK
SSB DATA
HI-FI.ENV.
ENV.
DOC-P
RESET
ML-F
ML-R
ML-L
ML-M
SAFETY SW
SW DATA 3-1
T REEL P
DEW S
S REEL P
T.TOP-S
T.END-S
FL START SW
SSB CLK
SSB DATA(I/O)
OEM OPT.
PAL
ATR ON/OFF
INSERT ON/OFF
LP
5vdc
0.6v
LP H
POWER UP
4K PWM
N.ADV.P.
SLOW TRK.P.
C-FG-P
TAPE SPEED
MC-BR
OSC1
OSC2
A/D REF
0/1 CLK
0/1 DATA
SV SCLK
SV DATA OUT
A.MUTE
A.REC MUTE
REF
RF SW P
B3001
POWER UP TO PW-A
XF301 4.0MHZ
ALWAYS 5V
REC H
PB H
ST+SL
ANT/VTR
S.PLAY
FF + REW
A.MUTE
D3002 D3003
IN SEL V.
AV CONTROL(8PIN)
COMPOSITE SYNC
C SYNC IN
ENV.SW (FROM VP-1)
4.43MHZ FSC IN
FSC IN
IC351 DIGITAL SERVO IC
INDEX-CLK
INDEX-DATA
SV-S+CLK
SV-S+DATA
NTSC/PAL
REF.
SWD 5V
VDD
FSC IN
VSS
C-SYNC
ENV.SW
VD
CTL-DUTY DETECT
MODE CONTROL
IC CONTROL
REF CLK
CLOCK GENERATOR
SYNC SEPAPATER
4-HEAD-SW
2H-DELAY AF-DELAY
VD GENERATOR
REF.DELAY
REF.GENERATOR
MODE OUT
SLOW/STILL
REF-TRK
D-WD-2
D-WD-1
D-PH
TRK-CR
SLOW-TRK CR
MC-BR
SP
EP/LP/SP
SLOW DRUM JITTER CONTROL
NORMAL TRK
SLOW TRK
TAPE SPEED DETECTOR
DIGITAL TRACKING
TRK DATA
NORMAL
SLOW
CAPSTAN REF-GENERATOR
EDIT
FG30/25 DIVIDER
S-PB DIVIDER
CAPSTAN PHASE CONTROL
CAPSTAN SPEED CONTROL
SLOW/STILL INTERMITTENT-DRIVE CONTROL (F.ADV)
DRUM-PHASE CONTROL
DRUM-SPEED CONTROL
F/R
REC-CTL
D-PG DL
RF-SW-P
C-FG2
C-FG1
F/R
VDD
STRT STP
CAP-P
DPE
FHE
DSE
D-FG
ROTARY
H SWP
RF SWP
AF-SWP
DL1
DL2
CTL IN
REMARK
REC CTL
PG W.M
D-PG
VR351 SWITCHING-POSITION ADJ.
SLOW TRACKING & JITTER CORRECTION
SP(H)
SP(LP H)
VR354
SLOW TRK(LP)
VR353
SLOW TRK (SP)
V44
D/A CONVERT LPF
IC352 SERVO AMP
C-FG2 AMP
C-FG1 AMP
CAPSTAN DRIVE
HEAD DRIVE
D-FG AMP
D-PG AMP
STILL+SLOW
REC CTL IN
REMARK
CTL PB OUT
THRESH HOLD SEL
SW LOGIC
C3559
C3505
B3514
V-LOCK CORRECTION (SP/LP)
VR361(SP)
VR363(LP)
V-LOCK ADJ. ON THE TB-1 BOARD
B3501
B3502
SP(LP H)
SP(H)
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

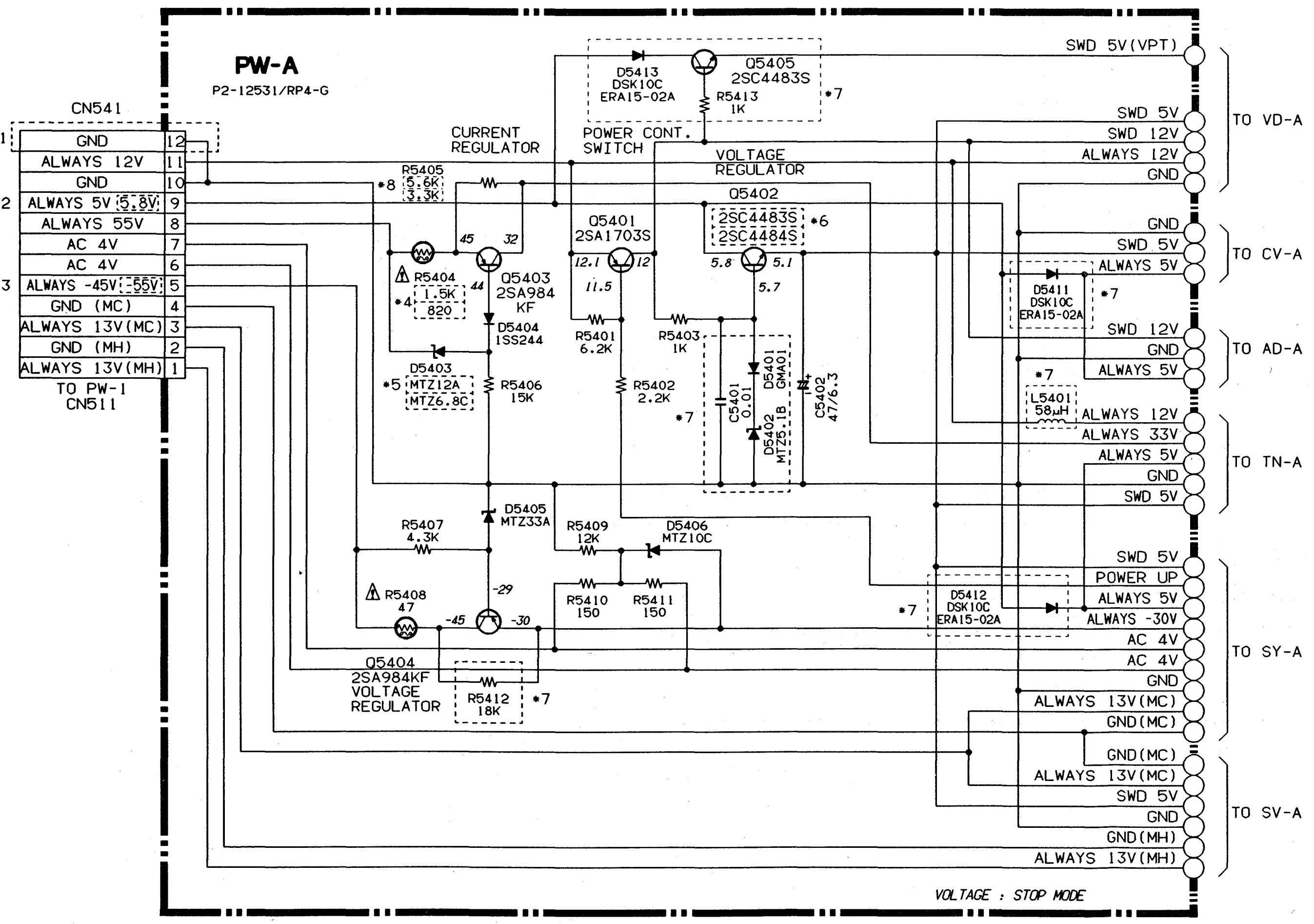
SYSTEM CONTROL & SERVO CIRCUIT BASIC BLOCK DIAGRAM


B3001
POWER UP TO PW-A
XF301 4.0MHZ
ALWAYS 5V
IC351 DIGITAL SERVO IC
IC352 SERVO AMP
SLOW TRACKING & JITTER CORRECTION
SP(H)
SP(LP H)
VR354
SLOW TRK(LP)
VR353
SLOW TRK (SP)
Vdd
B3506 INV.
D3516
D3504
D3506
MC-F/R
MODE OUT
SLOW/STILL
REF-TRK
D-WD-2
D-WD-1
D-PH
TRK-CR
SLOW-TRK CR
MC-BR
SP
EP/LP/SP
SLOW DRUM JITTER CONTROL
NORMAL TRK
SLOW TRK
TAPE SPEED DETECTOR
D-P
CTL
FG1
C-FG2
C-FG1
F/R
INDEX-CLK 37
INDEX-DATA 38
SV-S•CLK 39
SV-S•DATA 40
NTSC/PAL 41
REF. 42
SWD 5V 43
FSC IN 44
45
C-SYNC 46
ENV.SW 47
VD 48
CTL-DUTY DETECT
MODE CONTROL
IC CONTROL
DIGITAL TRACKING
TRK
TRK DATA
NORMAL
SLOW
REF-D
EDIT
P.B
REC
CAPSTAN REF-GENERATOR
CLK
FG30/25 DIVIDER
S-PB DIVIDER
CAPSTAN PHASE CONTROL
CPE
CAPSTAN SPEED CONTROL
CSE
VDD
FG2
SLOW/STILL INTERMITTENT-DRIVE CONTROL (F.ADV)
STRT STP
CAP-P
VDD
VSS
REF CLK
CLOCK GENERATOR
REF.DELAY
REF.GENERATOR
SYNC SEPAPATER
V.
H.
4-HEAD-SW
2H-DELAY AF-DELAY
VD GENERATOR
RF-SW-P
F/R
DRUM-PHASE CONTROL
DPE
FHE
DRUM-SPEED CONTROL
D-FG
DSE
REC-CTL
D-PG DL
D-PG
ROTARY
H SWP
RF SWP
AF-SWP
DL1
DL2
CTL IN
REMARK
REC CTL
PG W.M
VR351 SWITCHING-POSITION ADJ.
D/A CONVERT LPF
SWD 5V
C-FG2 AMP
C-FG1 AMP
CAPSTAN DRIVE
CAPSTAN DRIVE (MC-VS)
FF + REW
SW
B3507
HEAD DRIVE
HEAD DRUM DRIVE (MH-VS)
D-FG AMP
D-PG AMP
MECHANISM
C-FG
CAPSTAN MOTOR
HEAD DRUM MOTOR
D-FG
D-PG
CTL REC/PB AMP
STL SHAPE
STILL+SLOW 13
REC CTL IN 12
REMARK 11
CTL PB OUT 15
THRESH HOLD SEL
SW LOGIC
TRAP
REC AMP
AGC DET
CTL HEAD
CTL CHECK
FF+REW
CTL GAIN CONTROL
Q3503
B3503
B3501
VR361(SP)
VR363(LP)
C3559
C3505
B3514
V-LOCK ADJ. ON THE TB-1 BOARD
V-LOCK CORRECTION (SP/LP)
B3502
REC H
PB H
ST+SL
ANT/VTR
S.PLAY
FF + REW
OR
A.MUTE
D3002
D3003
IN SEL V.
AV CONTROL(8PIN)
RF SW P
H AMP SW
ROTARY
V-LOCK PULSE
TO VIDEO
FSC IN

AUDIO CIRCUIT BASIC BLOCK DIAGRAM


AUDIO INPUT SIGNAL
B2101
Q2101,Q2102
AV(LINE)AUDIO IN
TUNER AUDIO IN
AUDIO INPUT SELECTION-BLOCK
EXT H
PB EQ
LP:ON
LP
IC201 (LA7294)
EQUALIZE AMP
C2008,R2006
LPF
VR202
PB LEVEL
EE MUTE
ALC
ALC DET
PB MUTE
REC EE
PB
PB/EE
LINE AMP
POWER ON/OFF MUTE
MUTING CONTROL
C2009,R2009
ATTACK RECOVERY TIME CR
R2010,R2011
ALC LEVEL
AUDIO OUTPUT
AD MUTE
•S.PLAY
MECHANISM BLOCK
R2001
JP212
JP211
(+) BIAS (-)
REC/EE
EE
PB
REC
AUDIO R/P HEAD
VR201
CURRENT BIAS ADJ
POWER ON/OFF MUTE
REC AMP
REC MUTE
R2013, R2012
REC LEVEL
L2002
C2013
R2014
PEAKING
LP CONTROL
LP H
REC/EE CONTROL
REC H
PB/EE CONTROL
PB H
T2001
Q2001
70kHz OSC
AUDIO E HEAD
FULL E HEAD
RUSH CURRENT PROTECT
RIPPLE FILTER
SWD 12V
BDA1-12548/RP4-GF

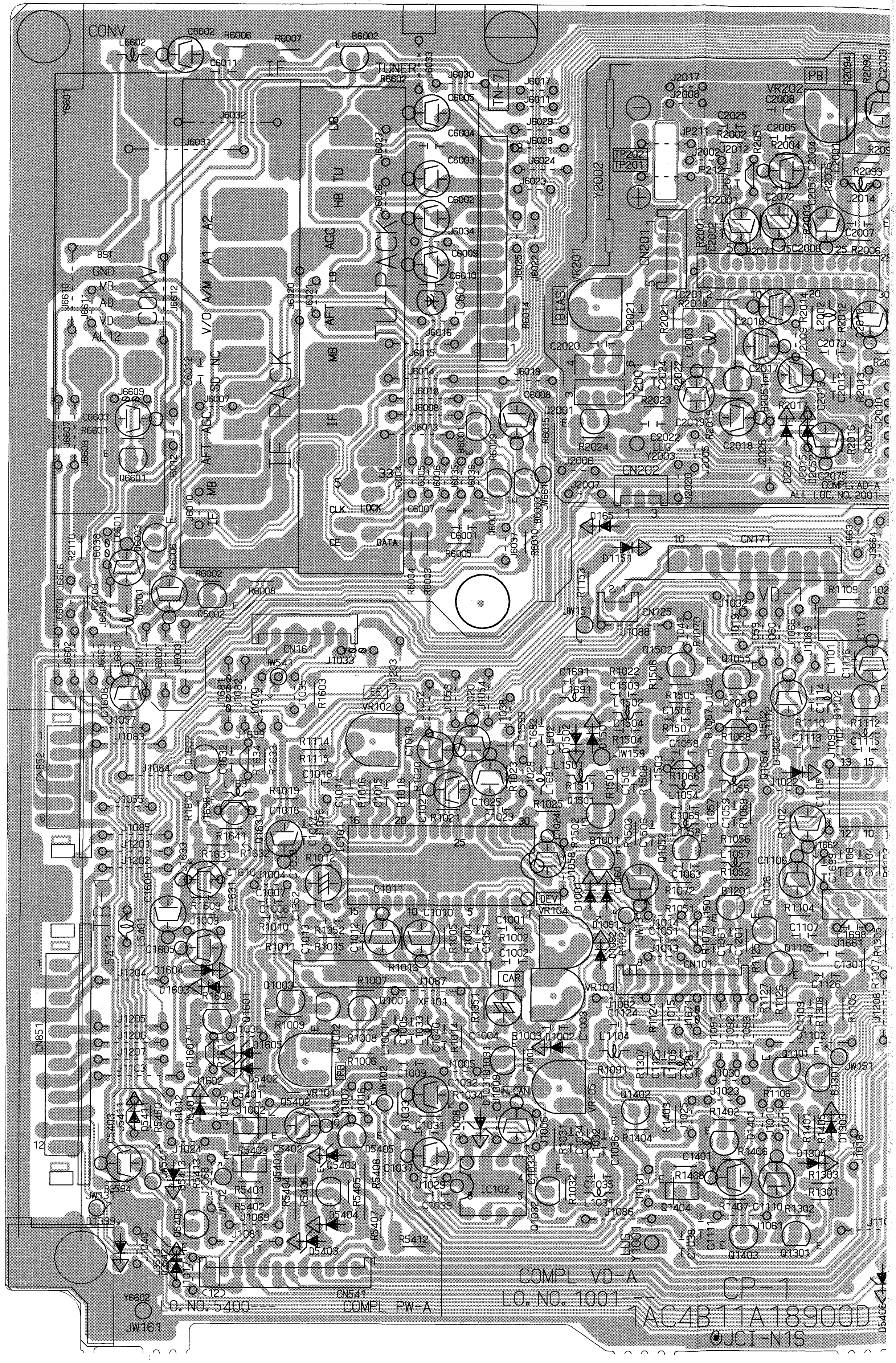
CP-1 BOARD (PW-A) POWER SUPPLY CIRCUIT DIAGRAM


PW-A
P2-12531/RP4-G
CN541
GND
ALWAYS 12V
GND
ALWAYS 5V 5.8V
ALWAYS 55V
AC 4V
AC 4V
ALWAYS -45V -55V
GND (MC)
ALWAYS 13V(MC)
GND (MH)
ALWAYS 13V(MH)
TO PW-1
CN511
CURRENT REGULATOR
POWER CONT. SWITCH
VOLTAGE REGULATOR
D5413
DSK10C
ERA15-02A
Q5405
2SC4483S
R5413
1K
R5405
5.6K
3.3K
R5404
1.5K
820
Q5403
2SA984
KF
Q5401
2SA1703S
Q5402
2SC4483S
2SC4484S
D5404
1SS244
D5403
MTZ12A
MTZ6.8C
R5406
15K
R5401
6.2K
R5403
1K
R5402
2.2K
C5401
0.01
D5401
DSM01
D5402
MTZ5.1B
C5402
47/6.3
D5411
DSK10C
ERA15-02A
L5401
58μH
D5405
MTZ33A
R5407
4.3K
R5409
12K
D5406
MTZ10C
R5408
47
R5410
150
R5411
150
Q5404
2SA984KF
VOLTAGE REGULATOR
R5412
18K
D5412
DSK10C
ERA15-02A
SWD 5V(VPT)
SWD 5V
SWD 12V
ALWAYS 12V
GND
TO VD-A
GND
SWD 5V
ALWAYS 5V
TO CV-A
SWD 12V
GND
ALWAYS 5V
TO AD-A
ALWAYS 12V
ALWAYS 33V
ALWAYS 5V
GND
SWD 5V
TO TN-A
SWD 5V
POWER UP
ALWAYS 5V
ALWAYS -30V
AC 4V
AC 4V
GND
ALWAYS 13V(MC)
GND(MC)
TO SY-A
GND(MC)
ALWAYS 13V(MC)
SWD 5V
GND
GND(MH)
ALWAYS 13V(MH)
TO SV-A
VOLTAGE : STOP MODE

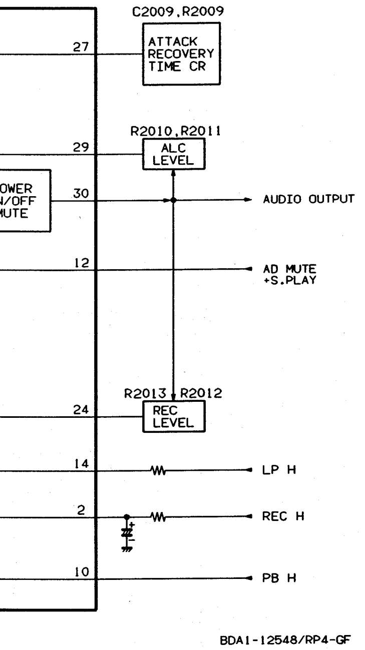
NOTE

	*1 CN541	*2 CN541 9P	*3 CN541 5P	*4 R5404	*5 D5403	*6 Q5402	*7	*8 R5405
VHR-7500G VHR-7530G VHR-8500SP	11P	ALWAYS 5V	ALWAYS -45V	1.5K	MTZ12A	2SC4483S	NOT USE	5.6K
VHR-7540G	12P	ALWAYS 5.8V	ALWAYS -55V	820	MTZ6.8C	2SC4484S	USE	5.6K
VHR-7500EX	11P	ALWAYS 5V	ALWAYS -45V	820	MTZ12A	2SC4483S	NOT USE	3.3K

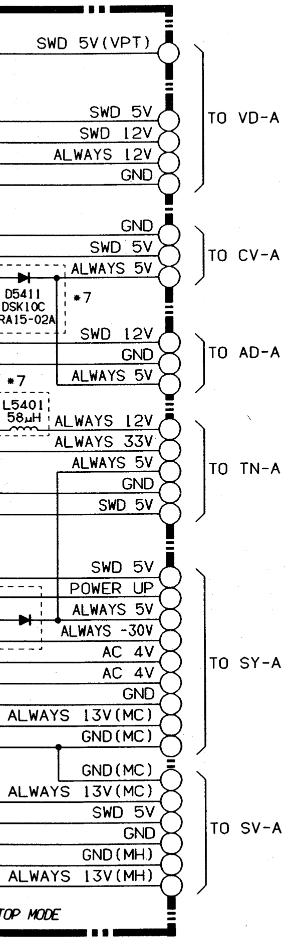
CP-1 P.


CONV
IF PACK
TU PACK
CN541
COMPL PW-A
LO. NO. 5400---
COMPL VD-A
LO. NO. 1001
CP-1
1AC4B11A18900D
JCI-N1S
CN202
CN171
CN852
CN851
COMPL AD-A
ALL LOC. NO. 2001

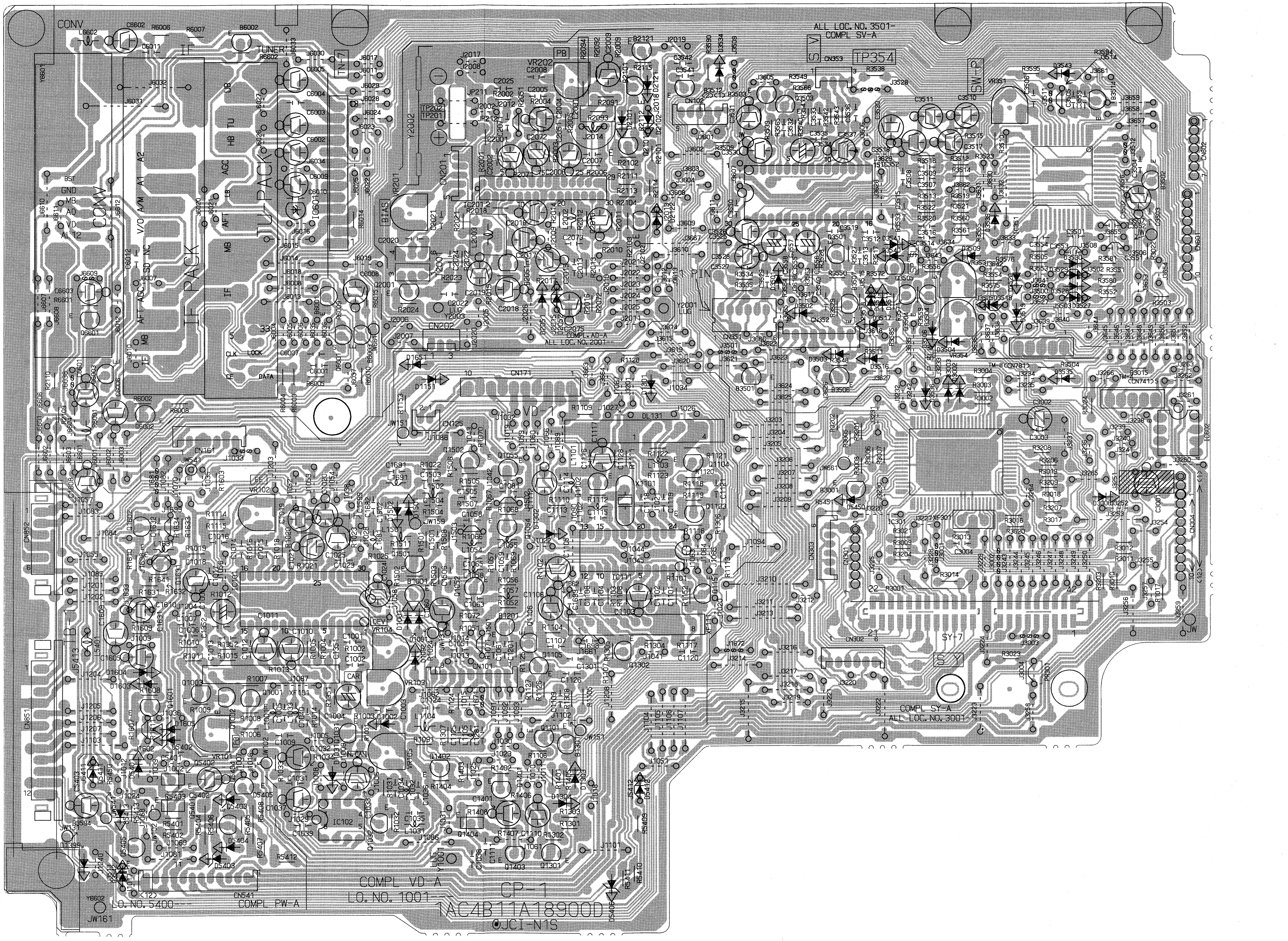
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17


C2009,R2009
27
ATTACK RECOVERY TIME CR
R2010,R2011
29
ALC LEVEL
30
OWER /OFF MUTE
AUDIO OUTPUT
12
AD MUTE +S.PLAY
R2013,R2012
24
REC LEVEL
14
LP H
2
REC H
10
PB H
BDA1-12548/RP4-GF

RAM


SWD 5V(VPT)
SWD 5V
SWD 12V
ALWAYS 12V
GND
TO VD-A
GND
SWD 5V
ALWAYS 5V
TO CV-A
D5411 DSK10C RA15-02A
*7
SWD 12V
GND
ALWAYS 5V
TO AD-A
*7
L5401 58µH
ALWAYS 12V
ALWAYS 33V
ALWAYS 5V
GND
SWD 5V
TO TN-A
SWD 5V
POWER UP
ALWAYS 5V
ALWAYS -30V
AC 4V
AC 4V
GND
ALWAYS 13V(MC)
GND(MC)
TO SY-A
GND(MC)
ALWAYS 13V(MC)
SWD 5V
GND
GND(MH)
ALWAYS 13V(MH)
TO SV-A
TOP MODE

CP-1 P.C.B.

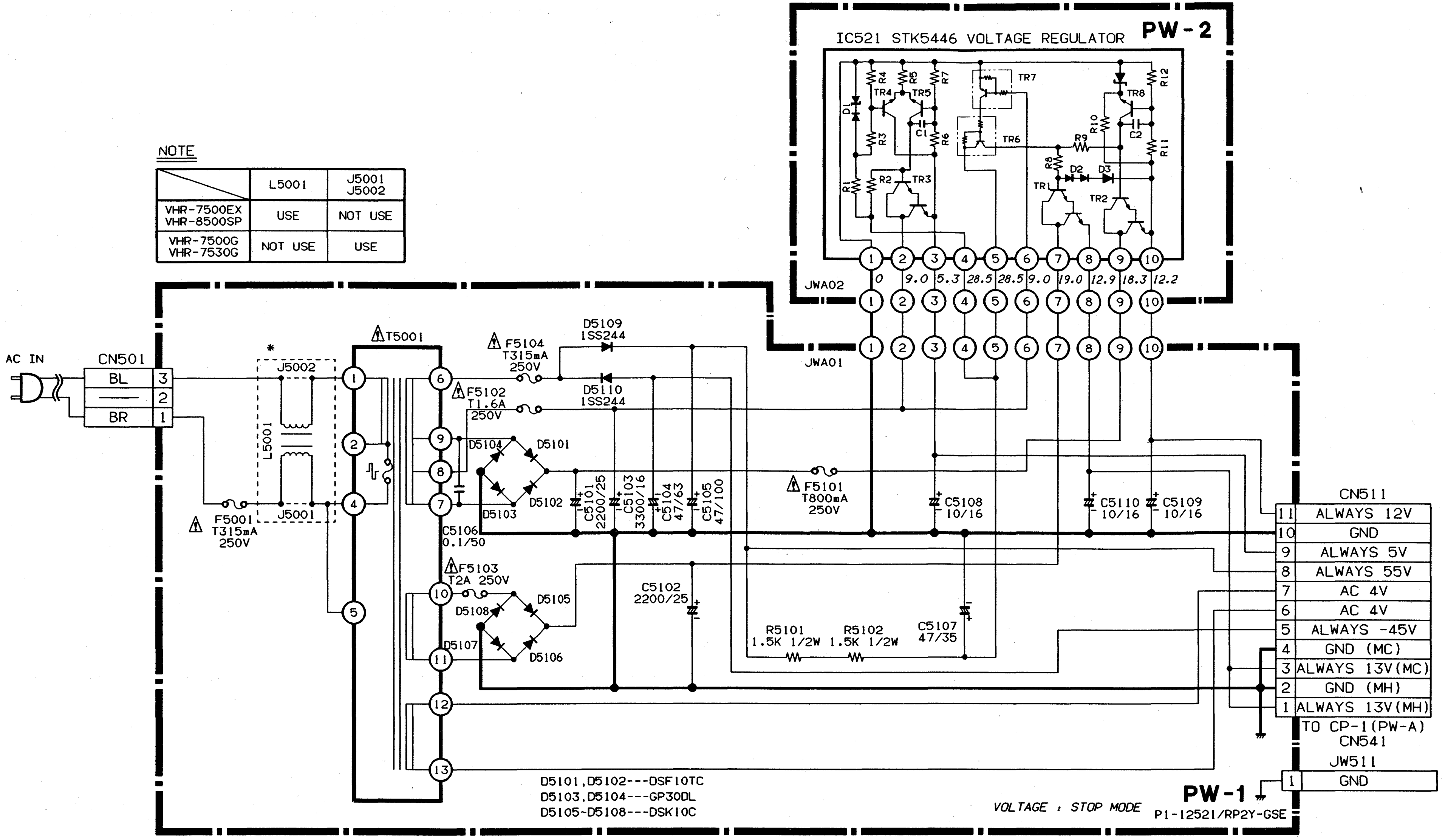

CONV
IF PACK
TU PACK
TUNER
BST
GND
MB
AD
VD
AL12
V/O A/M A1 A2
AFT AGC SD NC
IF MB
UB HB TU AGC LB AFT MB
CLK LOCK DATA CE
BIAS
PB
VR202
TP202
TP201
Y2002
CN201
CN202
CN171
VD-1
DL131
COMPL AD-A
ALL LOC. NO. 2001-
ALL LOC. NO. 3501-
COMPL SV-A
TP354
SV
SW-1
CN353
CN351
CN352
Y2001
LUG
PIN
TM-8
CN781
CN741
SY-7
CN302
CN303
CN304
CN501
CN601
CN602
COMPL SY-A
ALL LOC. NO. 3001
CN161
CN125
CN101
CN541
CN851
CN852
DEV
CAR
FBT
IN CAN
VR101
VR102
VR103
VR104
VR105
VR351
IC102
IC111
IC301
COMPL VD-A
LO. NO. 1001
CP-1
1AC4B11A18900D
JCI-N1S
LO. NO. 5400-
COMPL PW-A
Y6602
JW161
JW

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

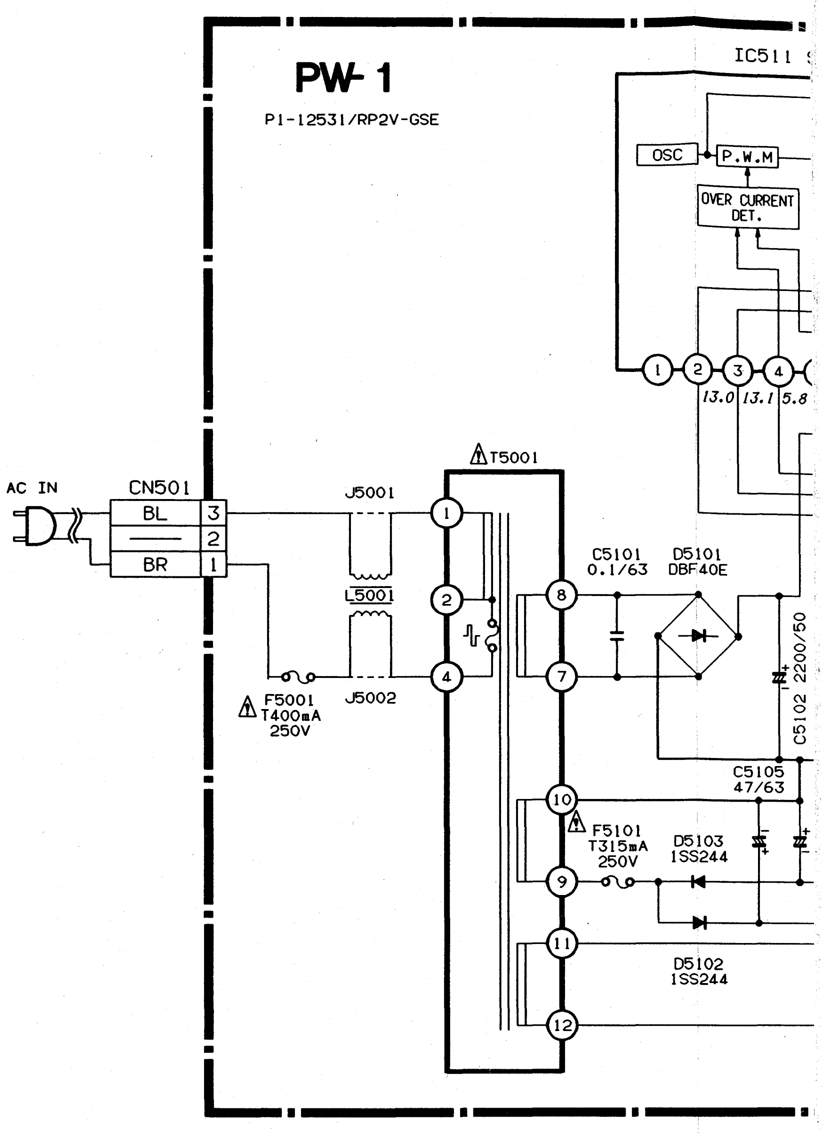
PW-1, 2 BOARD POWER SUPPLY CIRCUIT DIAGRAM (VHR-7500G, VHR-7500EX, VHR-7530G, VHR-8500SP)

NOTE

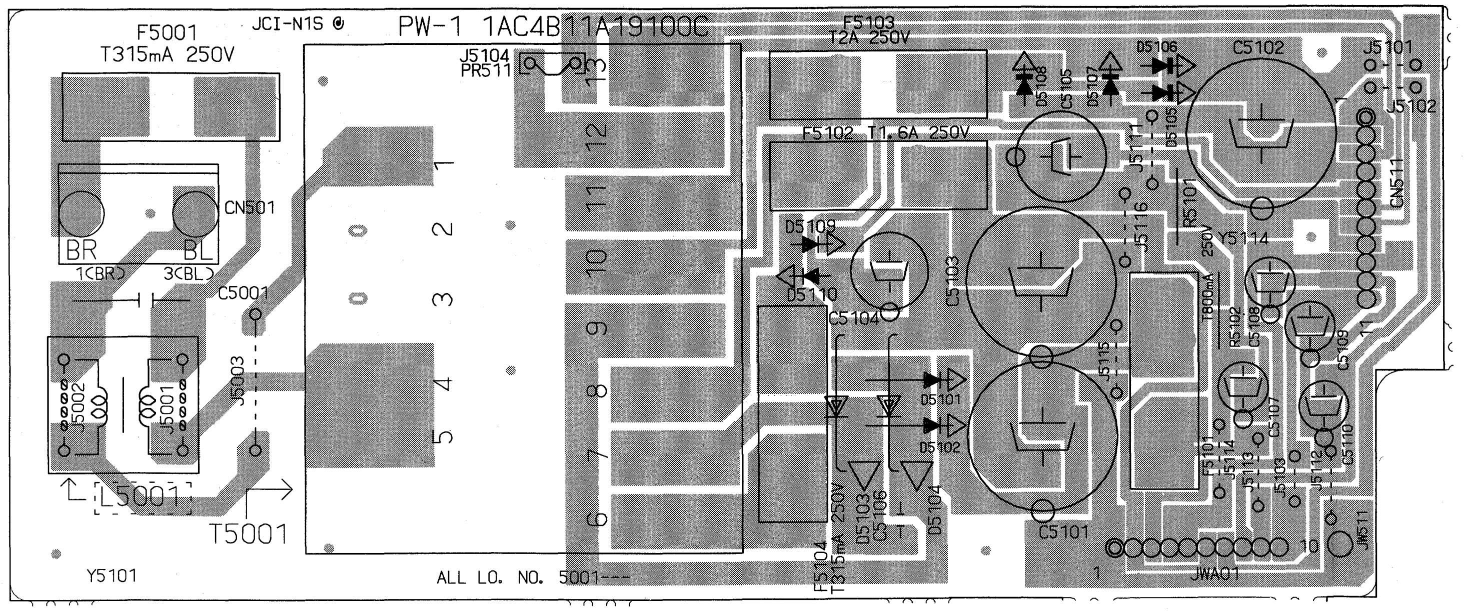
	L5001	J5001 J5002
VHR-7500EX VHR-8500SP	USE	NOT USE
VHR-7500G VHR-7530G	NOT USE	USE


PW-2
IC521 STK5446 VOLTAGE REGULATOR
TR1 TR2 TR3 TR4 TR5 TR6 TR7 TR8
R1 R2 R3 R4 R5 R6 R7 R8 R9 R10 R11 R12
C1 C2 D1 D2 D3
JWA02
0 9.0 5.3 28.5 28.5 9.0 19.0 12.9 18.3 12.2
JWA01
AC IN
CN501
BL
BR
J5002
L5001
J5001
F5001 T315mA 250V
T5001
F5104 T315mA 250V
F5102 T1.6A 250V
F5103 T2A 250V
F5101 T800mA 250V
D5109 1SS244
D5110 1SS244
D5101 D5102 D5103 D5104 D5105 D5106 D5107 D5108
C5101 2200/25
C5103 3300/16
C5104 47/63
C5105 47/100
C5106 0.1/50
C5102 2200/25
C5107 47/35
C5108 10/16
C5110 10/16
C5109 10/16
R5101 1.5K 1/2W
R5102 1.5K 1/2W
CN511
11 ALWAYS 12V
10 GND
9 ALWAYS 5V
8 ALWAYS 55V
7 AC 4V
6 AC 4V
5 ALWAYS -45V
4 GND (MC)
3 ALWAYS 13V(MC)
2 GND (MH)
1 ALWAYS 13V(MH)
TO CP-1(PW-A) CN541
JW511
1 GND
D5101,D5102---DSF10TC
D5103,D5104---GP30DL
D5105-D5108---DSK10C
VOLTAGE : STOP MODE
PW-1
P1-12521/RP2Y-GSE

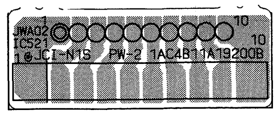
PW-1 BOARD POWER

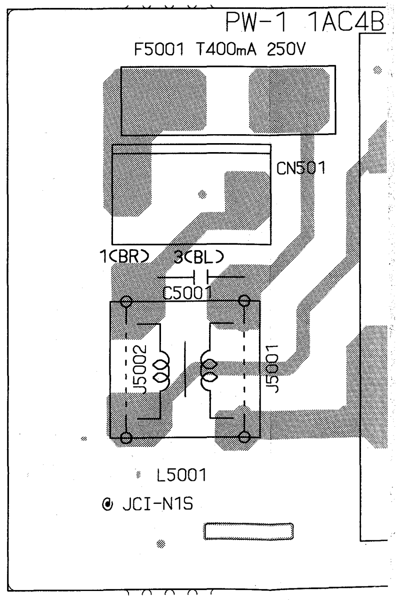

PW-1
P1-12531/RP2V-GSE
IC511
OSC
P.W.M
OVER CURRENT DET.
13.0 13.1 5.8
AC IN
CN501
BL
BR
T5001
J5001
L5001
J5002
F5001 T400mA 250V
C5101 0.1/63
D5101 DBF40E
C5102 2200/50
C5105 47/63
F5101 T315mA 250V
D5103 1SS244
D5102 1SS244

PW-1 P.C.B. (VHR-7500G, VHR-7500EX, VHR-7530G, VHR-8500SP)

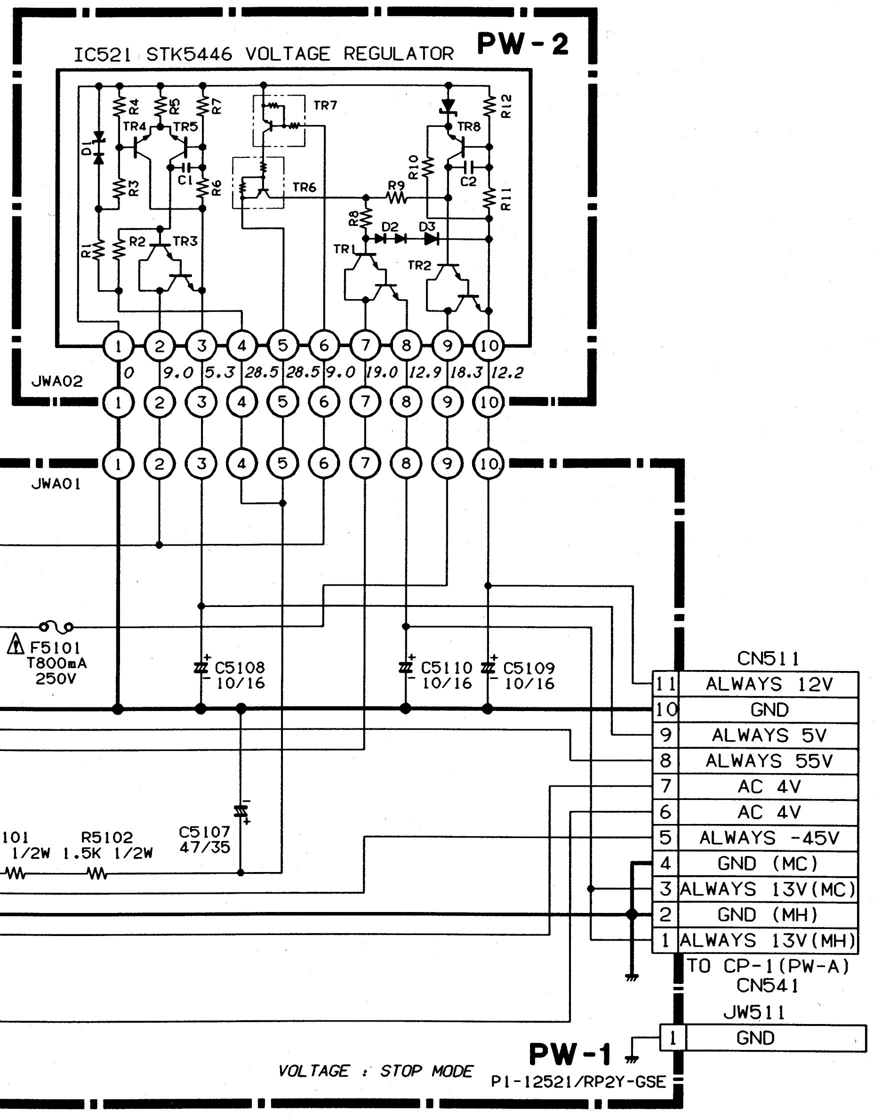

F5001 T315mA 250V
JCI-N1S
PW-1 1AC4B11A19100C
J5104 PR511
F5103 T2A 250V
F5102 T1.6A 250V
D5106 D5107 D5108 D5105
C5102
J5101
J5102
CN501
BR BL
1(BR) 3(BL)
C5001
J5002 J5001 J5003
L5001
T5001
D5109 D5110
C5103 C5104
R5101
D5101 D5102
C5101
D5103 C5106 D5104
F5104 T315mA 250V
F5101 T800mA 250V
CN511
JWA01
JW511
Y5101
ALL LO. NO. 5001---

PW-2 P.C.B. (VHR-7500G, VHR-7500EX, VHR-7530G, VHR-8500SP)

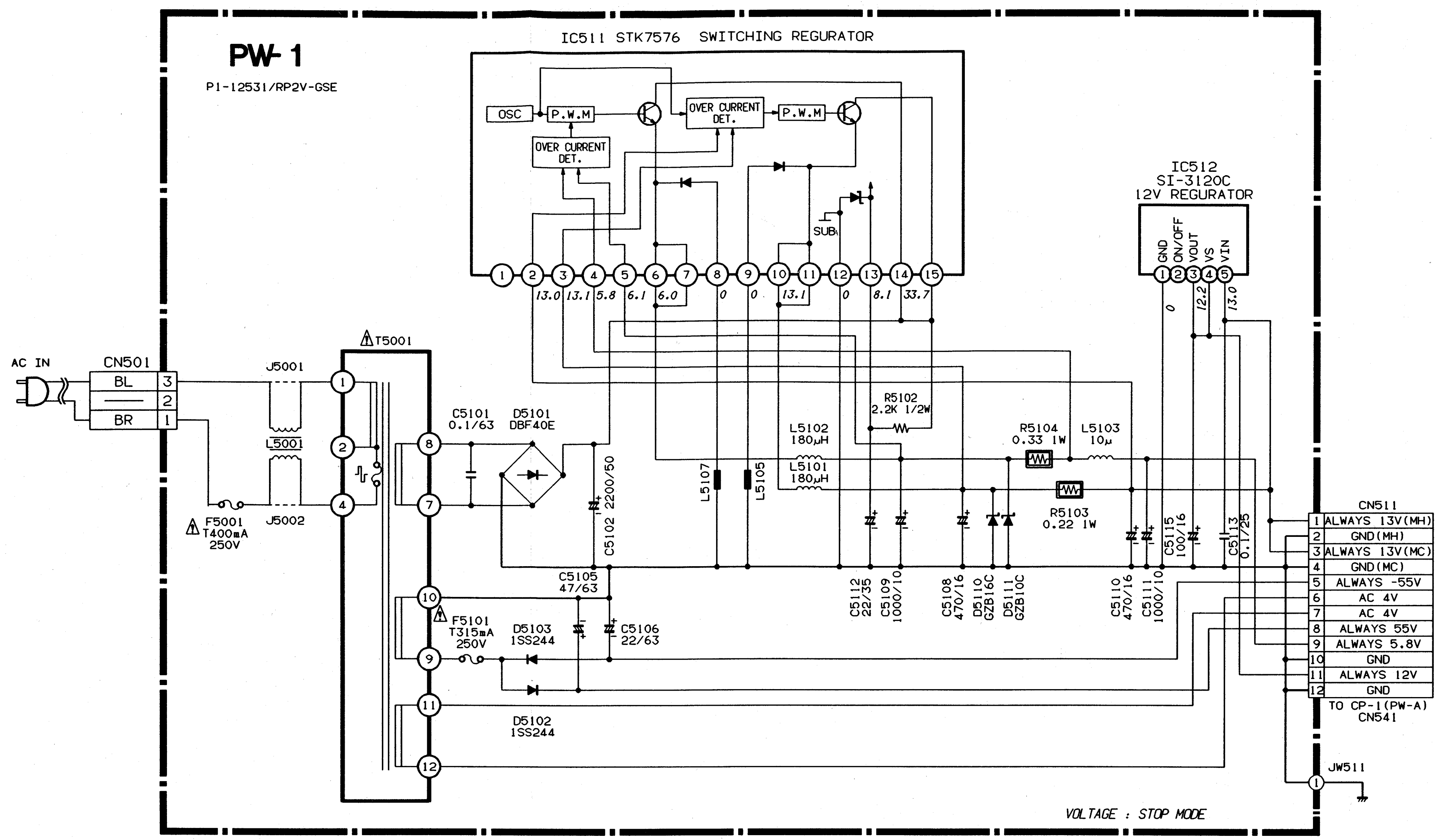

JWA02
IC521
JCI-N1S
PW-2 1AC4B11A19200B
1
10


PW-1 1AC4B
F5001 T400mA 250V
CN501
1(BR) 3(BL)
C5001
J5002
J5001
L5001
JCI-N1S

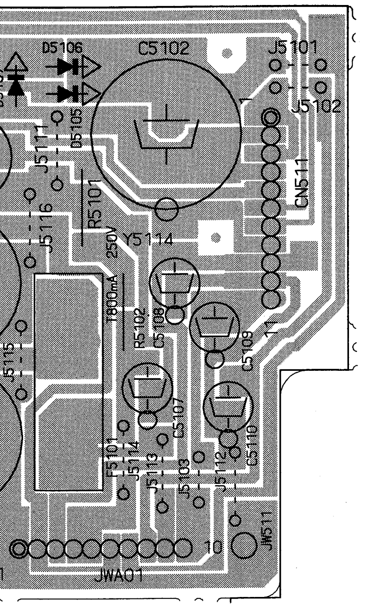
AM (VHR-7500G, VHR-7500EX, VHR-7530G,


PW-2
IC521 STK5446 VOLTAGE REGULATOR
TR1
TR2
TR3
TR4
TR5
TR6
TR7
TR8
D1
D2
D3
JWA02
JWA01
0
9.0
5.3
28.5
28.5
9.0
19.0
12.9
18.3
12.2
F5101
T800mA
250V
C5108
10/16
C5110
10/16
C5109
10/16
C5107
47/35
101
1/2W
R5102
1.5K 1/2W
CN511
11 ALWAYS 12V
10 GND
9 ALWAYS 5V
8 ALWAYS 55V
7 AC 4V
6 AC 4V
5 ALWAYS -45V
4 GND (MC)
3 ALWAYS 13V(MC)
2 GND (MH)
1 ALWAYS 13V(MH)
TO CP-1(PW-A)
CN541
JW511
1 GND
PW-1
P1-12521/RP2Y-GSE
VOLTAGE : STOP MODE

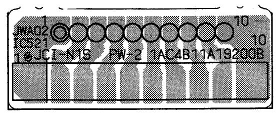
PW-1 BOARD POWER SUPPLY CIRCUIT DIAGRAM (VHR-7540G)


PW-1
P1-12531/RP2V-GSE
IC511 STK7576 SWITCHING REGURATOR
OSC
P.W.M
OVER CURRENT DET.
P.W.M
OVER CURRENT DET.
SUB
13.0
13.1
5.8
6.1
6.0
0
0
13.1
0
8.1
33.7
IC512
SI-3120C
12V REGURATOR
GND
ON/OFF
VOUT
VS
VIN
0
12.2
13.0
AC IN
CN501
BL
BR
J5001
L5001
J5002
F5001
T400mA
250V
T5001
C5101
0.1/63
D5101
DBF40E
C5102 2200/50
C5105
47/63
F5101
T315mA
250V
D5103
1SS244
C5106
22/63
D5102
1SS244
L5107
L5105
L5102
180μH
L5101
180μH
R5102
2.2K 1/2W
R5104
0.33 1W
L5103
10μ
R5103
0.22 1W
C5112
22/35
C5109
1000/10
C5108
470/16
D5110
GZB16C
D5111
GZB10C
C5110
470/16
C5111
1000/10
C5115
100/16
C5113
0.1/25
CN511
1 ALWAYS 13V(MH)
2 GND(MH)
3 ALWAYS 13V(MC)
4 GND(MC)
5 ALWAYS -55V
6 AC 4V
7 AC 4V
8 ALWAYS 55V
9 ALWAYS 5.8V
10 GND
11 ALWAYS 12V
12 GND
TO CP-1(PW-A)
CN541
JW511
VOLTAGE : STOP MODE

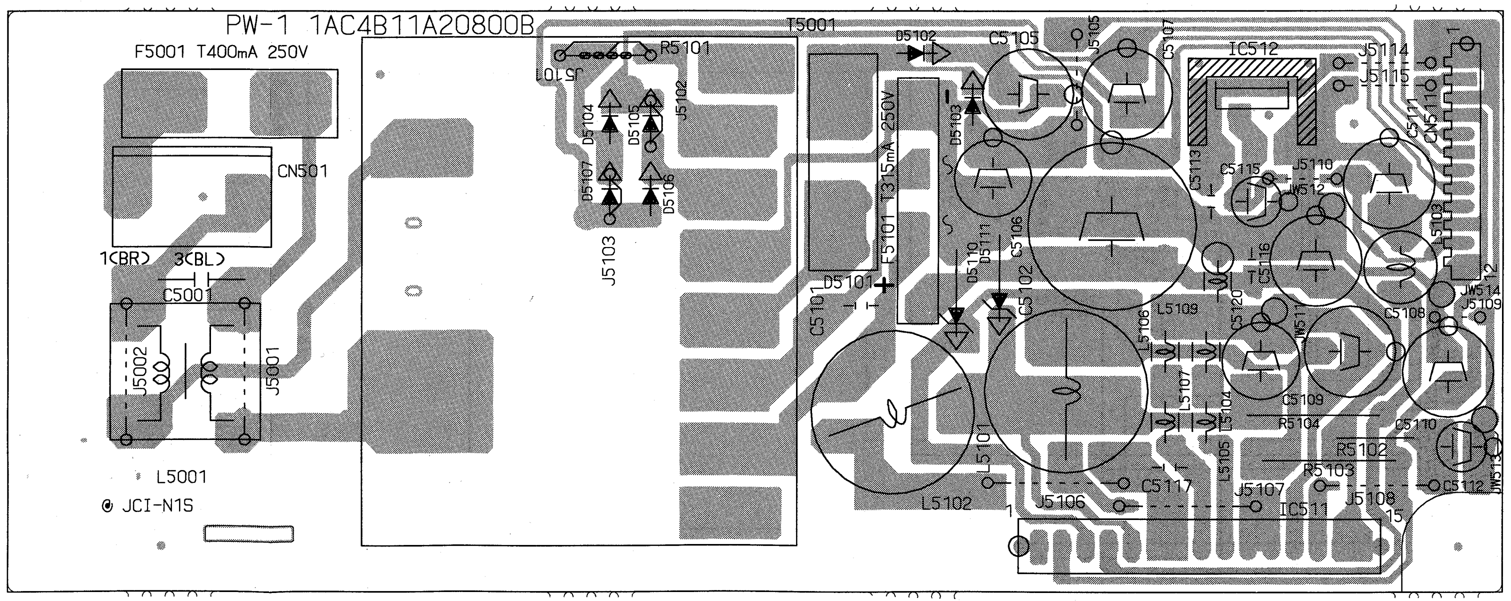
HR-8500SP)


D5106
C5102
J5101
J5102
D5105
R5101
J5116
CN511
250V
T800mA
J5114
D5102
C5108
C5109
C5107
J5115
F5101
J5114
J5113
J5103
J5112
C5110
JW511
JWA01
10

PW-2 P.C.B. (VHR-7500G, VHR-7500EX, VHR-7530G, VHR-8500SP)

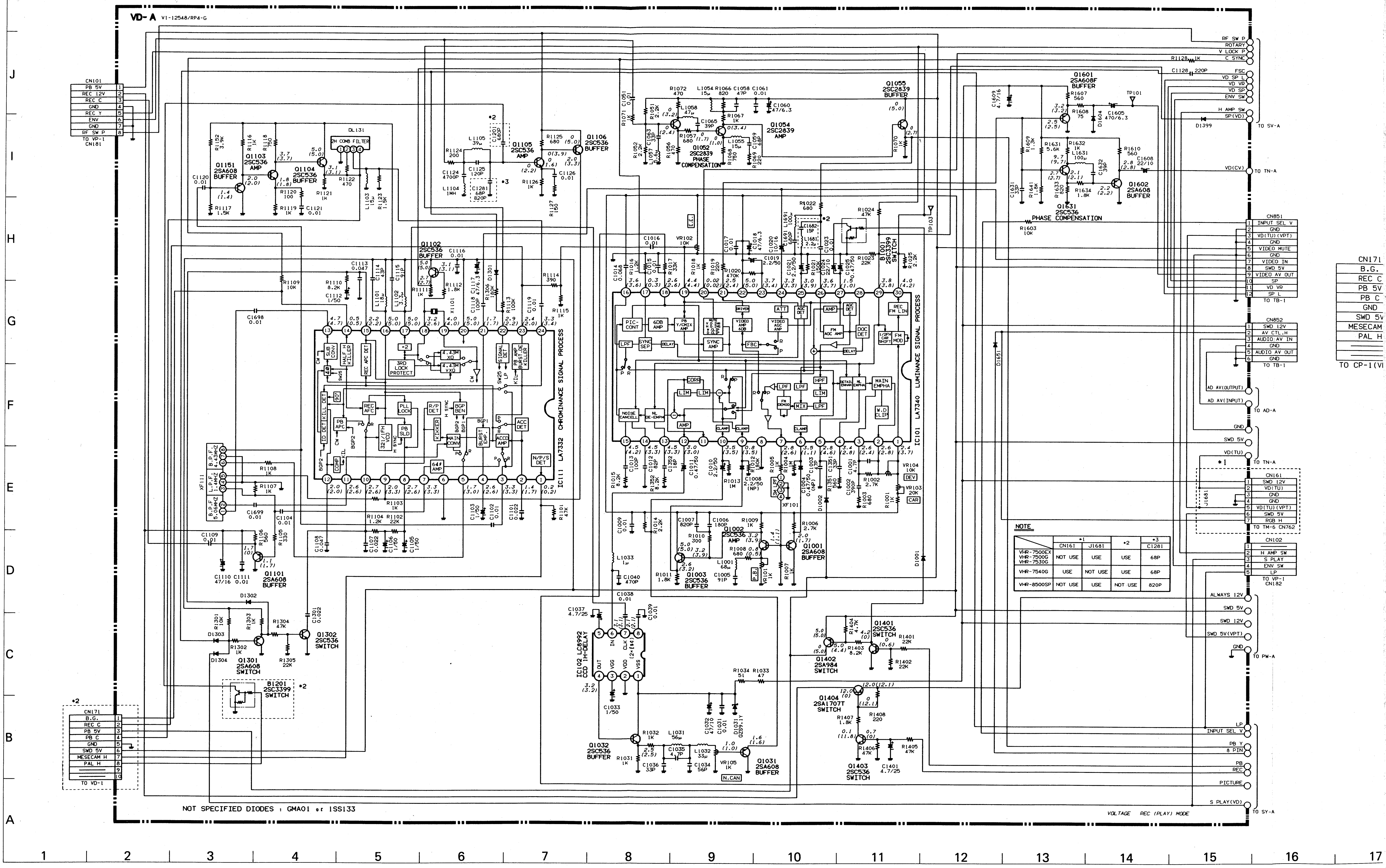

JWA02
IC521
JCI-N1S
PW-2 1AC4B11A19200B
10

PW-1 P.C.B. (VHR-7540G)


PW-1 1AC4B11A20800B
F5001 T400mA 250V
CN501
1(BR)
3(BL)
C5001
J5002
J5001
L5001
JCI-N1S
T5001
R5101
J5101
D5104
D5107
D5105
D5102
D5103
D5106
J5103
C5105
J5105
J5107
IC512
J5114
J5115
F5101 T315mA 250V
D5101
C5101
C5102
C5106
D5110
D5111
C5113
C5115
J5110
J5112
J5116
L5109
L5106
L5107
L5104
L5105
L5101
L5102
J5106
C5117
J5107
J5108
IC511
R5104
R5102
R5103
C5109
C5110
C5120
C5111
C5112
J5111
J5109
L5103
JW514
JW513
JW512
C5108

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

CP-1 BOARD (VD-A) VIDEO CIRCUIT DIAGRAM


VD-A V1-12548/RP4-G
IC111 LA7332 CHROMINANCE SIGNAL PROCESS
IC101 LA7340 LUMINANCE SIGNAL PROCESS
IC102 LC8992 CCD 1H-DELAY
CN101
PB 5V
REC 12V
REC C
GND
REC Y
ENV
GND
RF SW P
TO VP-1 CN181
CN171
B.G.
REC C
PB 5V
PB C
GND
SWD 5V
MESECAM H
PAL H
TO VD-1
CN851
INPUT SEL V
VD(TU)(VPT)
VIDEO MUTE
VIDEO IN
SWD 5V
VIDEO AV OUT
SP
VD VR
SP L
TO TB-1
CN852
SWD 12V
AV CTL H
AUDIO AV IN
AUDIO AV OUT
TO TB-1
CN161
SWD 12V
VD(TU)
VD(TU)(VPT)
SWD 5V
RGB H
TO TM-6 CN762
CN102
H AMP SW
S PLAY
ENV SW
LP
TO VP-1 CN182
RF SW P
ROTARY
V LOCK P
C SYNC
FSC
VD SP L
VD VR
VD SP
ENV SW
H AMP SW
SP(VD)
TO SV-A
VD(CV)
TO TN-A
AD AV(OUTPUT)
AD AV(INPUT)
TO AD-A
SWD 5V
VD(TU)
TO TN-A
ALWAYS 12V
SWD 5V
SWD 12V
SWD 5V(VPT)
TO PW-A
LP
INPUT SEL V
PB Y
8 PIN
PB
REC
PICTURE
S PLAY(VD)
TO SY-A
Q1151 2SA608 BUFFER
Q1103 2SC536 AMP
Q1104 2SC536 BUFFER
DL131 2H COMB FILTER
Q1105 2SC536 AMP
Q1106 2SC536 BUFFER
Q1102 2SC536 BUFFER
Q1101 2SA608 BUFFER
Q1301 2SA608 SWITCH
Q1302 2SC536 SWITCH
B1201 2SC3399 SWITCH
XF111
Q1052 2SC2839 PHASE COMPENSATION
Q1054 2SC2839 AMP
Q1055 2SC2839 BUFFER
B1001 2SC3399 SWITCH
Q1601 2SA608F BUFFER
Q1631 2SC536 PHASE COMPENSATION
Q1602 2SA608 BUFFER
Q1002 2SC536 AMP
Q1003 2SC536 BUFFER
Q1001 2SA608 BUFFER
XF101
Q1032 2SC536 BUFFER
Q1031 2SA608 BUFFER
Q1401 2SC536 SWITCH
Q1402 2SA984 SWITCH
Q1404 2SA1707T SWITCH
Q1403 2SC536 SWITCH
D1031 GZS9.1Y
N.CAN
VR102
VR104 DEV
VR103 CAR
VR105
TP101
TP103
E.E.
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17

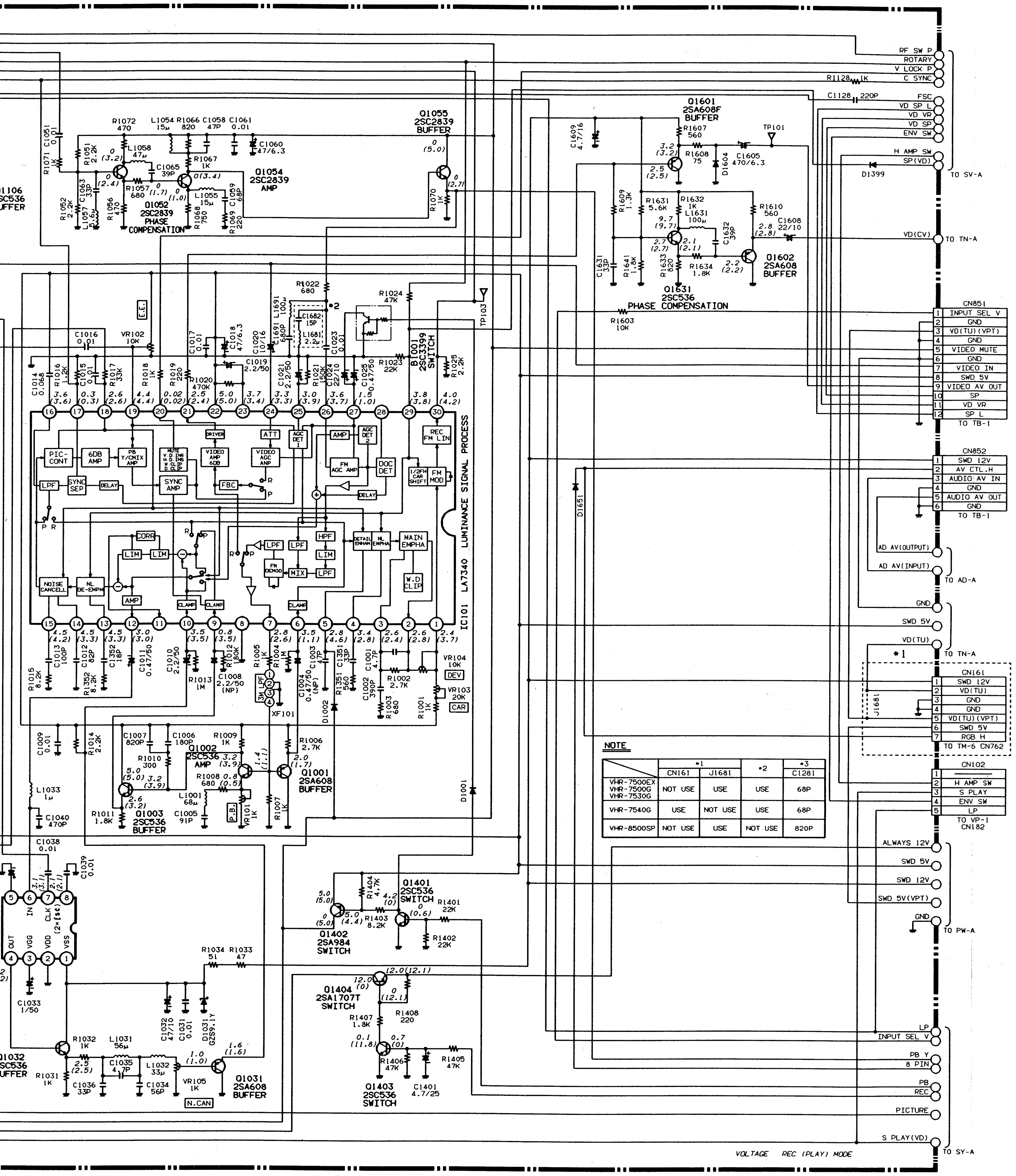
NOT SPECIFIED DIODES : GMA01 or 1SS133

VOLTAGE REC (PLAY) MODE

NOTE

	•1		•2	•3
	CN161	J1681		C1281
VHR-7500EX VHR-7500G VHR-7530G	NOT USE	USE	USE	68P
VHR-7540G	USE	NOT USE	USE	68P
VHR-8500SP	NOT USE	USE	NOT USE	820P

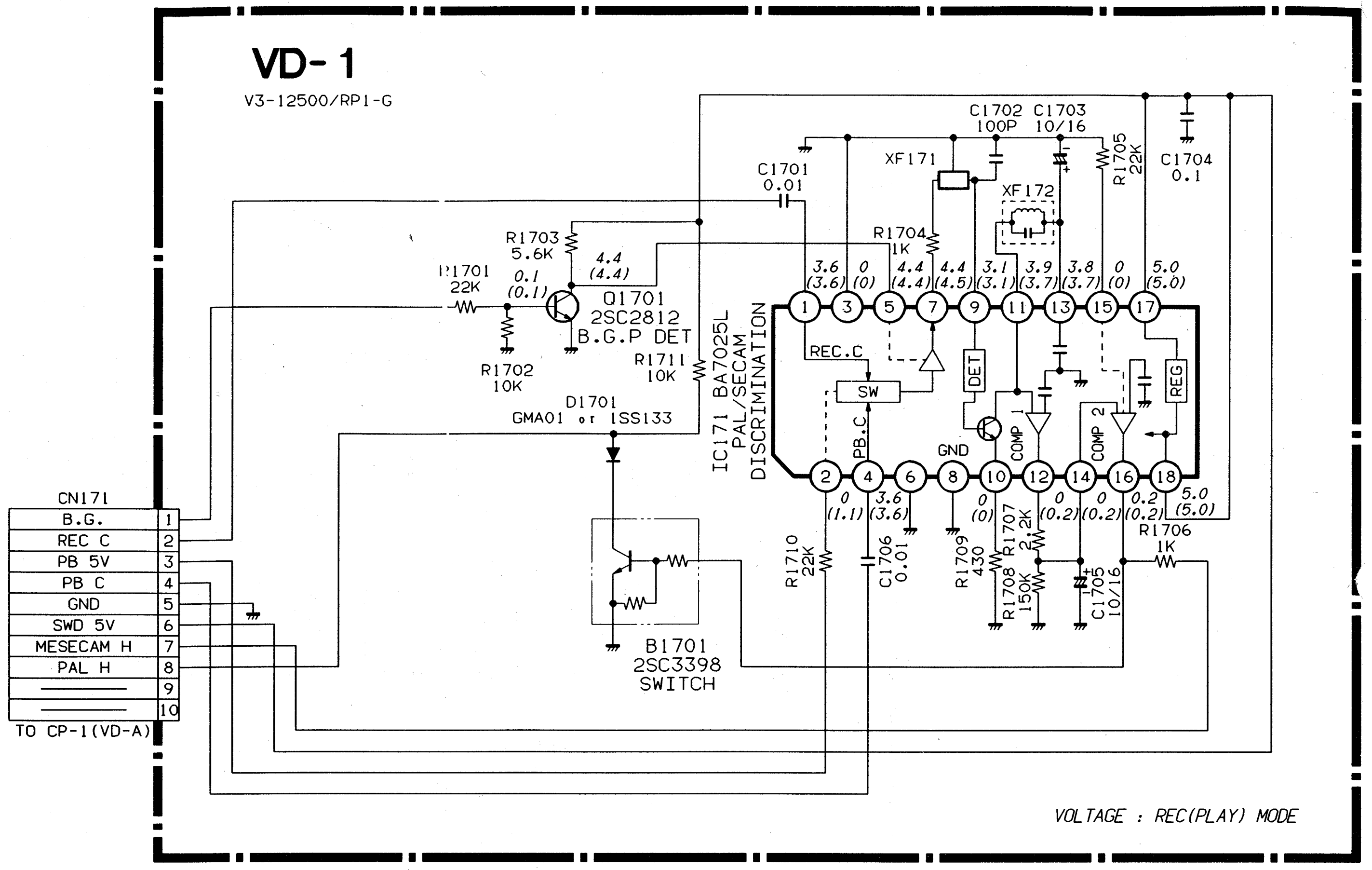
RD (VD-A) VIDEO CIRCUIT DIAGRAM


RF SW P
ROTARY
V LOCK P
C SYNC
FSC
VD SP L
VD VR
VD SP
ENV SW
H AMP SW
SP(VD)
TO SV-A
VD(CV)
TO TN-A
CN851
INPUT SEL V
GND
VD(TU)(VPT)
GND
VIDEO MUTE
GND
VIDEO IN
SWD 5V
VIDEO AV OUT
SP
VD VR
SP L
TO TB-1
CN852
SWD 12V
AV CTL H
AUDIO AV IN
GND
AUDIO AV OUT
GND
TO TB-1
AD AV(OUTPUT)
AD AV(INPUT)
TO AD-A
GND
SWD 5V
VD(TU)
TO TN-A
CN161
SWD 12V
VD(TU)
GND
GND
VD(TU)(VPT)
SWD 5V
RGB H
TO TM-6 CN762
CN102
H AMP SW
S PLAY
ENV SW
LP
TO VP-1 CN182
ALWAYS 12V
SWD 5V
SWD 12V
SWD 5V(VPT)
GND
TO PW-A
LP
INPUT SEL V
PB Y
8 PIN
PB
REC
PICTURE
S PLAY(VD)
TO SY-A
Q1055 2SC2839 BUFFER
Q1054 2SC2839 AMP
Q1052 2SC2839 PHASE COMPENSATION
Q1601 2SA608F BUFFER
Q1602 2SA608 BUFFER
Q1631 2SC536 PHASE COMPENSATION
Q1101 2SC3399 SWITCH
IC101 LA7340 LUMINANCE SIGNAL PROCESS
Q1002 2SC536 AMP
Q1001 2SA608 BUFFER
Q1003 2SC536 BUFFER
Q1401 2SC536 SWITCH
Q1402 2SA984 SWITCH
Q1404 2SA1707T SWITCH
Q1403 2SC536 SWITCH
Q1032 2SC536 BUFFER
Q1031 2SA608 BUFFER
VOLTAGE REC (PLAY) MODE

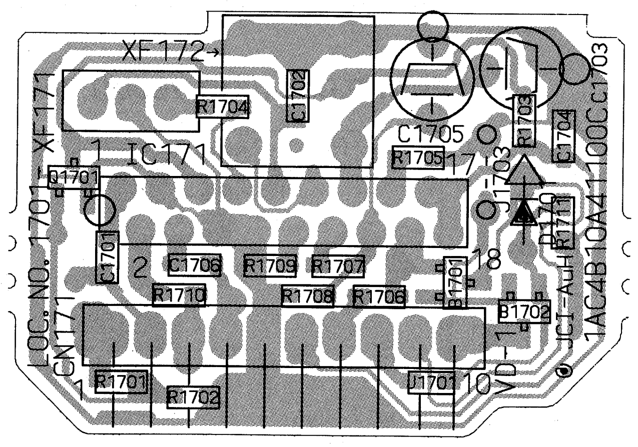
NOTE

	*1		*2	*3
	CN161	J1681		C1281
VHR-7500EX VHR-7500G VHR-7530G	NOT USE	USE	USE	68P
VHR-7540G	USE	NOT USE	USE	68P
VHR-8500SP	NOT USE	USE	NOT USE	820P

VD-1 BOARD PAL/SECAM DISCRIMINATION CIRCUIT DIAGRAM
(VHR-7500G, VHR-7500EX, VHR-7530G, VHR-7540G)


VD-1
V3-12500/RP1-G
IC171 BA7025L PAL/SECAM DISCRIMINATION
Q1701 2SC2812 B.G.P DET
B1701 2SC3398 SWITCH
D1701 GMA01 or 1SS133
XF171
XF172
REC.C
SW
DET
COMP 1
COMP 2
REG
PB.C
GND
CN171
B.G.
REC C
PB 5V
PB C
GND
SWD 5V
MESECAM H
PAL H
TO CP-1(VD-A)
VOLTAGE : REC(PLAY) MODE

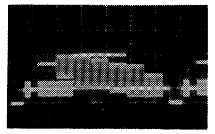
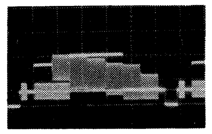
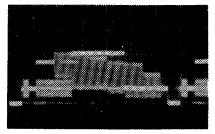
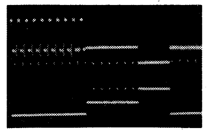
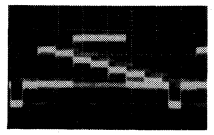
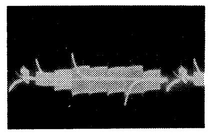
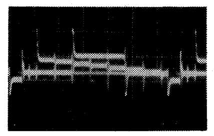
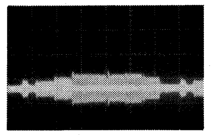
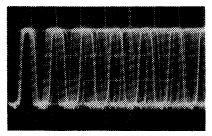
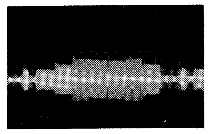
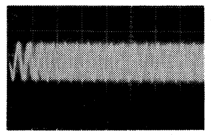
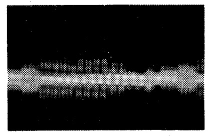
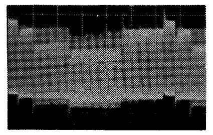
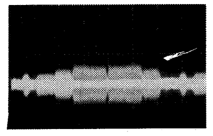
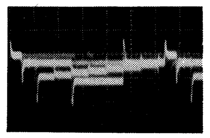
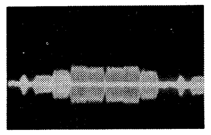
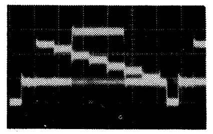
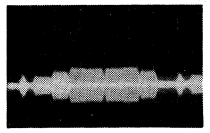
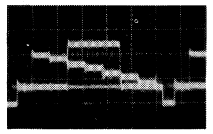
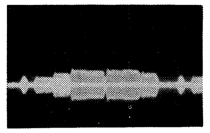
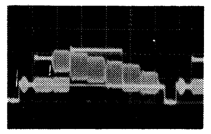
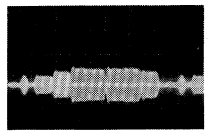
VD-1 P.C.B. (VHR-7500G, VHR-7500EX, VHR-7530G, VHR-7540G)


XF172
XF171
IC171
CN171
Q1701
C1701
C1702
C1703
C1704
C1705
C1706
R1701
R1702
R1704
R1705
R1706
R1707
R1708
R1709
R1710
R1711
B1701
B1702
J1701
D1701
LOC. NO. 1701
1AC4B10A41100C
VD-1

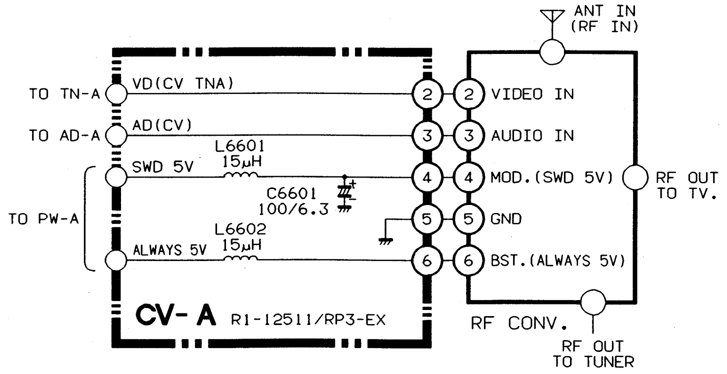
8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

WAVEFORM OF VIDEO

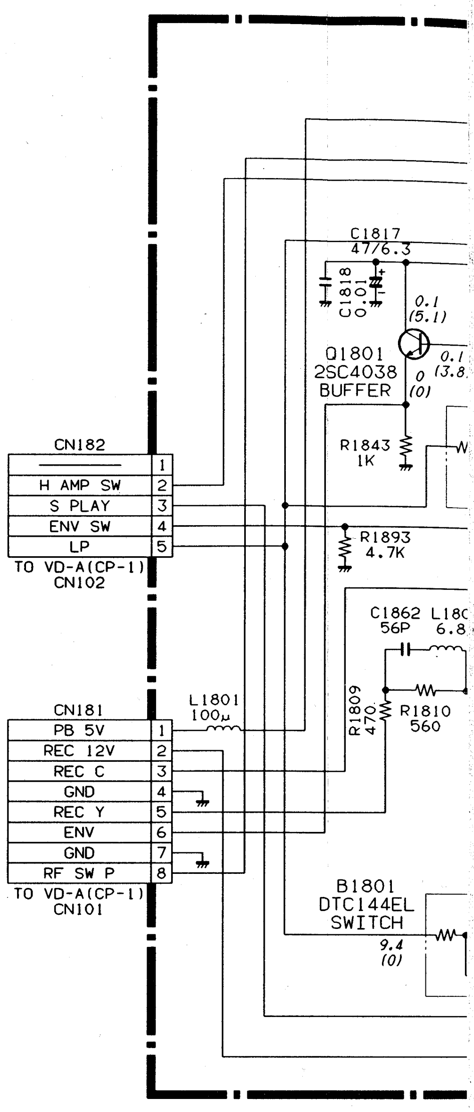
WF-V5

TEST LOCATION	WAVEFORM	MODE/LEVEL	TEST LOCATION	WAVEFORM	MODE/LEVEL
IC101 Pin 24		REC, EE 1 Vp-p	IC101 Pin 21		REC, EE 2 Vp-p
IC101 Pin 7		REC, EE 1 Vp-p	IC101 (UPPER) Pin 21 (LOWER) Pin 20		STILL (UPPER) 2 Vp-p (LOWER) 5 Vp-p
IC101 Pin 6		REC, EE 0.45 Vp-p	IC111 Pin 21		REC, EE 1 Vp-p
IC101 Pin 2		REC, EE 1.3 Vp-p	IC111 Pin 3		REC, EE 0.14 Vp-p
IC101 Pin 30		REC, EE 1.5 Vp-p	IC111 Pin 9		REC, EE 0.8Vp-p
IC101 Pin 26		PB 0.3 Vp-p	Q1105 Base		PB 0.1 Vp-p
IC101 Pin 7		PB 2.0 Vp-p	Q1106 Emitter		PB 0.8 Vp-p
Q1002 Base		PB 0.5 Vp-p	IC111 Pin 7		PB 0.3 Vp-p
IC101 Pin 9		PB 0.6 Vp-p	IC111 Pin 5		PB 1.2 Vp-p
IC101 Pins 10/12		PB 0.5 Vp-p	IC111 Pin 24		PB 0.24 Vp-p
IC101 Pin 21		PB 2 Vp-p	IC111 Pin 23		PB 0.7 Vp-p

CP-1 BOARD (CV-A) RF CONVERTER CONNECTION CIRCUIT DIAGRAM

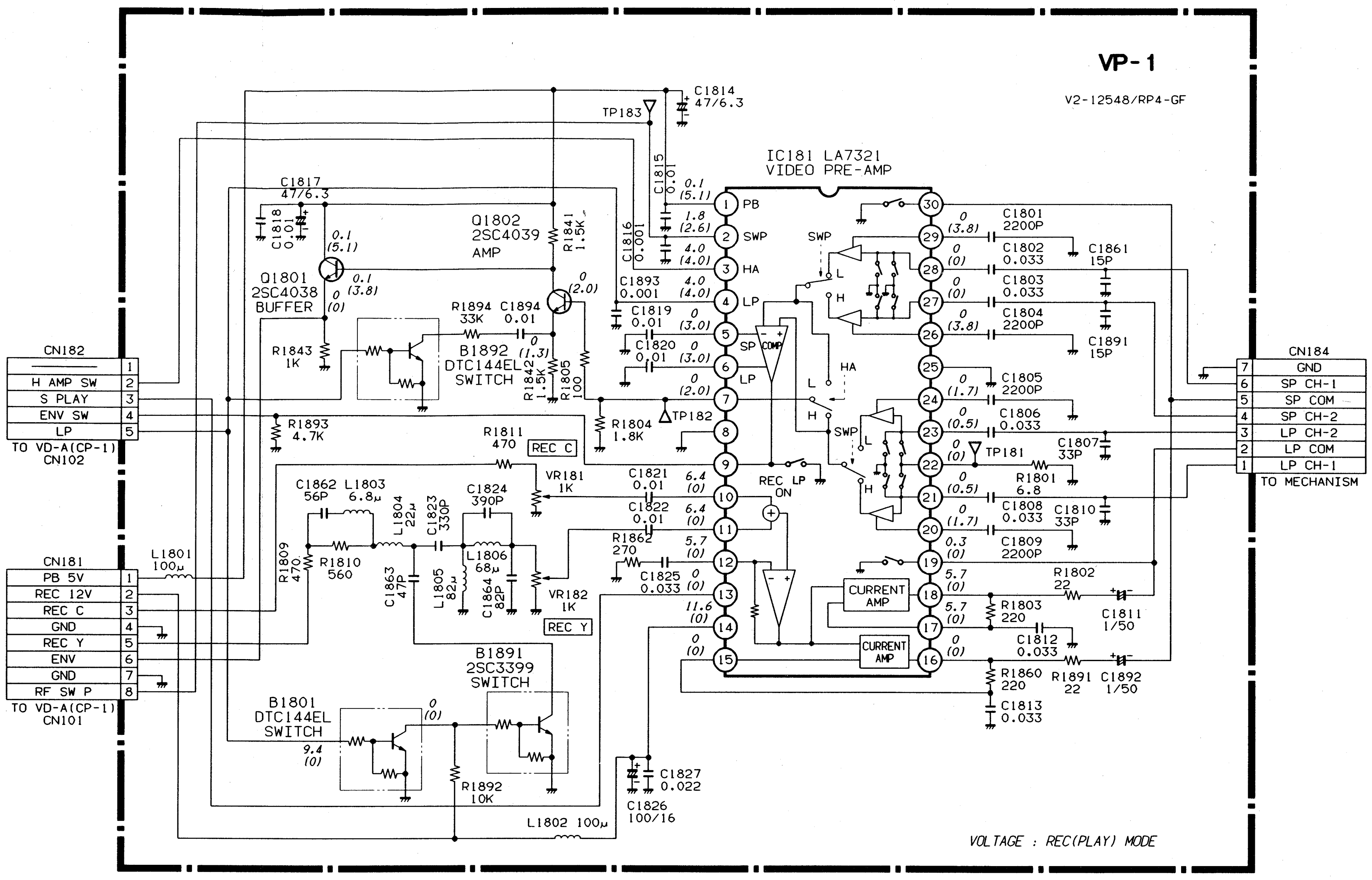

ANT IN
(RF IN)
TO TN-A
VD(CV TNA)
TO AD-A
AD(CV)
L6601
15μH
SWD 5V
C6601
100/6.3
TO PW-A
L6602
15μH
ALWAYS 5V
2
3
4
5
6
VIDEO IN
AUDIO IN
MOD.(SWD 5V)
GND
BST.(ALWAYS 5V)
RF OUT
TO TV.
CV- A
R1-12511/RP3-EX
RF CONV.
RF OUT
TO TUNER

VP-

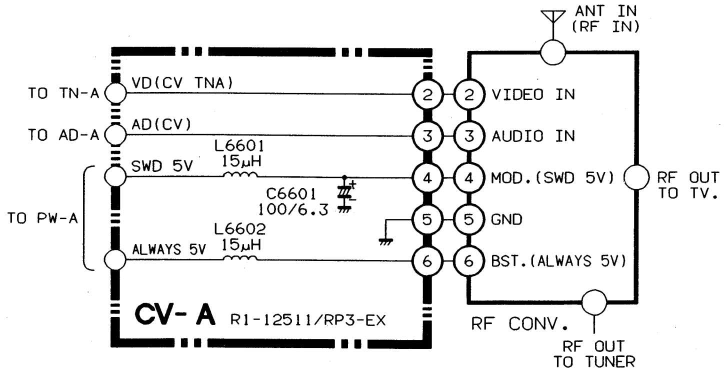

C1817
47/6.3
C1818
0.01
0.1
(5.1)
Q1801
2SC4038
BUFFER
0
(0)
0.1
(3.8
R1843
1K
CN182
1
H AMP SW
2
S PLAY
3
ENV SW
4
LP
5
TO VD-A(CP-1)
CN102
R1893
4.7K
C1862
56P
L180
6.8
L1801
100μ
R1809
470
R1810
560
CN181
PB 5V
1
REC 12V
2
REC C
3
GND
4
REC Y
5
ENV
6
GND
7
RF SW P
8
TO VD-A(CP-1)
CN101
B1801
DTC144EL
SWITCH
9.4
(0)

/LEVEL
E
R)
R)
E
E
-p
E
p
p
p
p
p
-p
p

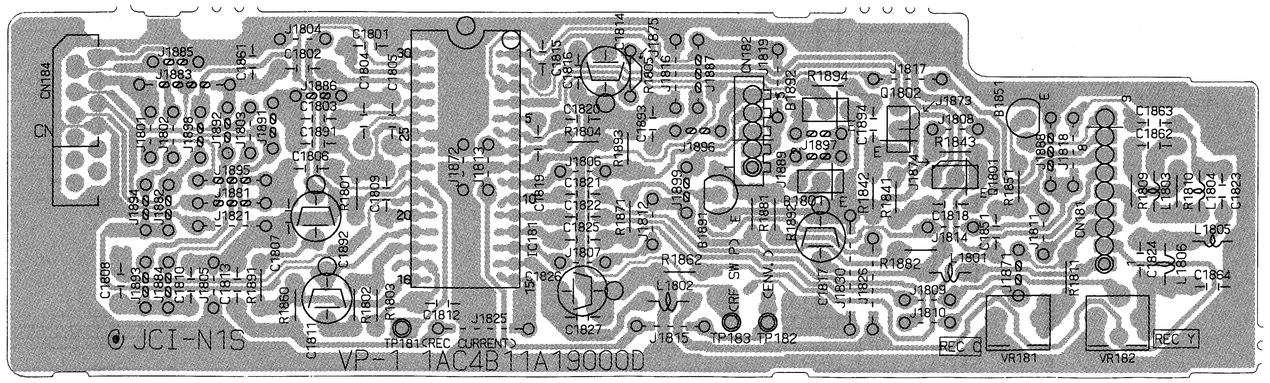
VP-1 BOARD VIDEO PRE-AMP CIRCUIT DIAGRAM


VP-1
V2-12548/RP4-GF
IC181 LA7321
VIDEO PRE-AMP
PB
SWP
HA
LP
SP COMP
REC LP ON
CURRENT AMP
Q1801
2SC4038
BUFFER
Q1802
2SC4039
AMP
B1892
DTC144EL
SWITCH
B1801
DTC144EL
SWITCH
B1891
2SC3399
SWITCH
C1814 47/6.3
TP183
C1815 0.01
C1816 0.001
C1817 47/6.3
C1818 0.01
R1841 1.5K
R1842 1.5K
R1805 100
R1843 1K
R1894 33K
C1894 0.01
C1893 0.001
C1819 0.01
C1820 0.01
R1804 1.8K
TP182
R1893 4.7K
R1811 470
REC C
VR181 1K
VR182 1K
REC Y
C1862 56P
L1803 6.8µ
L1804 22µ
C1823 330P
C1824 390P
L1806 68µ
C1864 82P
L1805 82µ
C1863 47P
R1809 470
R1810 560
C1821 0.01
C1822 0.01
R1862 270
C1825 0.033
L1801 100µ
L1802 100µ
R1892 10K
C1827 0.022
C1826 100/16
C1801 2200P
C1802 0.033
C1803 0.033
C1804 2200P
C1861 15P
C1891 15P
C1805 2200P
C1806 0.033
C1807 33P
TP181
R1801 6.8
C1808 0.033
C1810 33P
C1809 2200P
R1802 22
C1811 1/50
R1803 220
C1812 0.033
R1860 220
R1891 22
C1892 1/50
C1813 0.033
CN182
H AMP SW
S PLAY
ENV SW
LP
TO VD-A(CP-1) CN102
CN181
PB 5V
REC 12V
REC C
GND
REC Y
ENV
GND
RF SW P
TO VD-A(CP-1) CN101
CN184
GND
SP CH-1
SP COM
SP CH-2
LP CH-2
LP COM
LP CH-1
TO MECHANISM
VOLTAGE : REC(PLAY) MODE

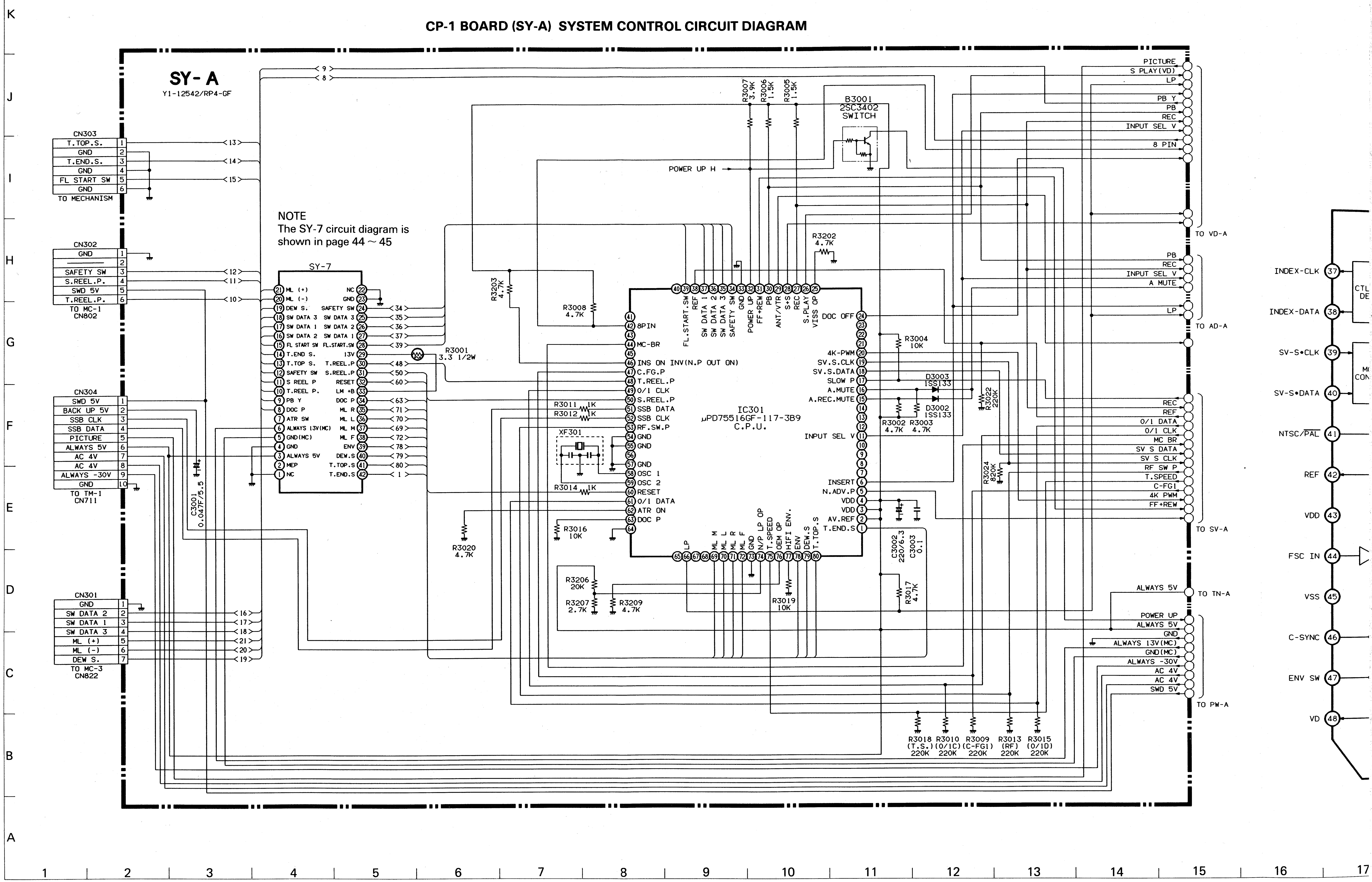
CP-1 BOARD (CV-A) RF CONVERTER CONNECTION CIRCUIT DIAGRAM


ANT IN (RF IN)
TO TN-A
VD(CV TNA)
TO AD-A
AD(CV)
TO PW-A
SWD 5V
L6601 15µH
C6601 100/6.3
ALWAYS 5V
L6602 15µH
VIDEO IN
AUDIO IN
MOD.(SWD 5V)
GND
BST.(ALWAYS 5V)
RF OUT TO TV.
CV-A
R1-12511/RP3-EX
RF CONV.
RF OUT TO TUNER

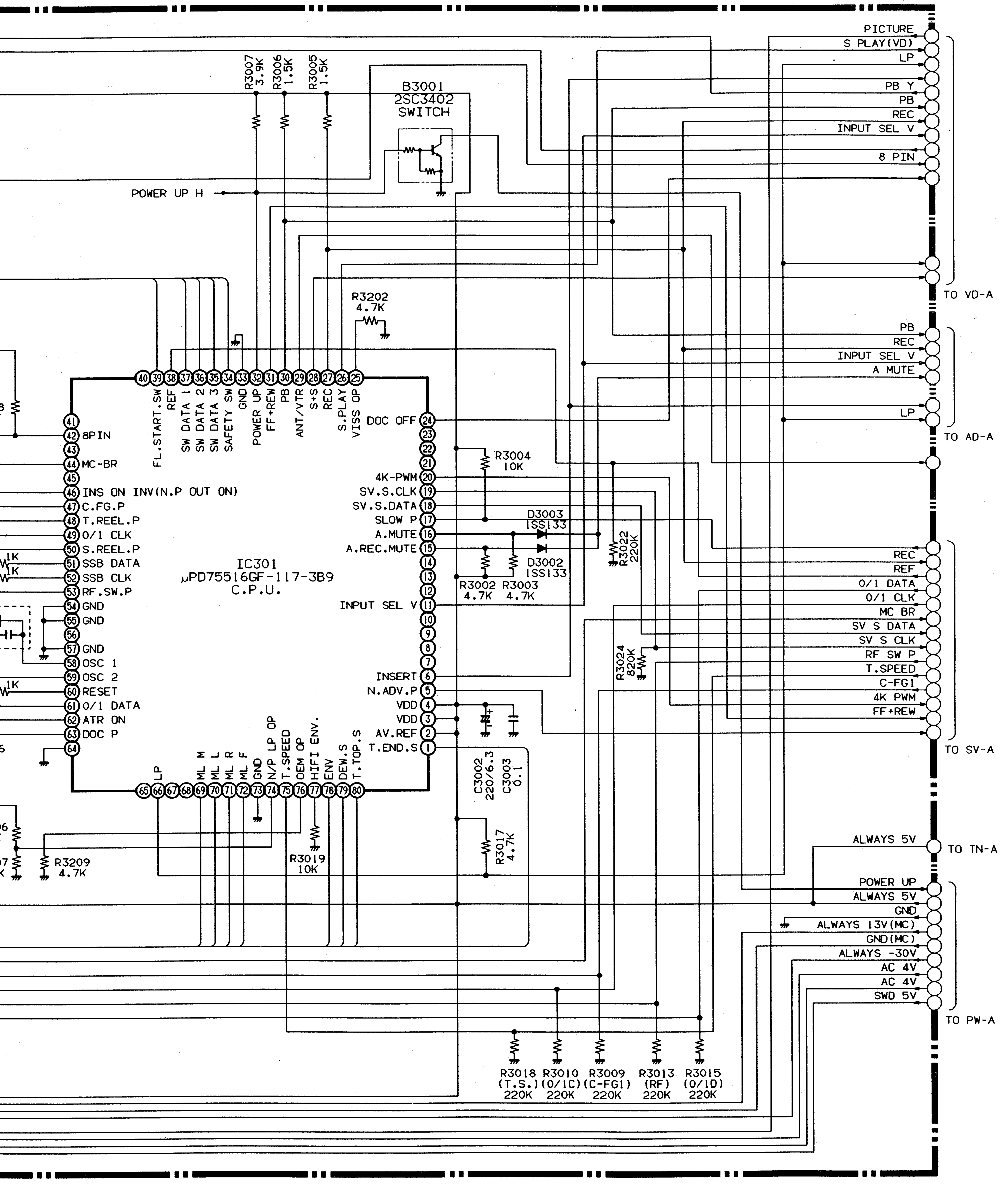
VP-1 P.C.B.


CN184
JCI-N1S
VP-1 1AC4B11A19000D
IC181
TP181
TP183
TP182
REC C
REC Y
VR181
VR182
CN181
CN182

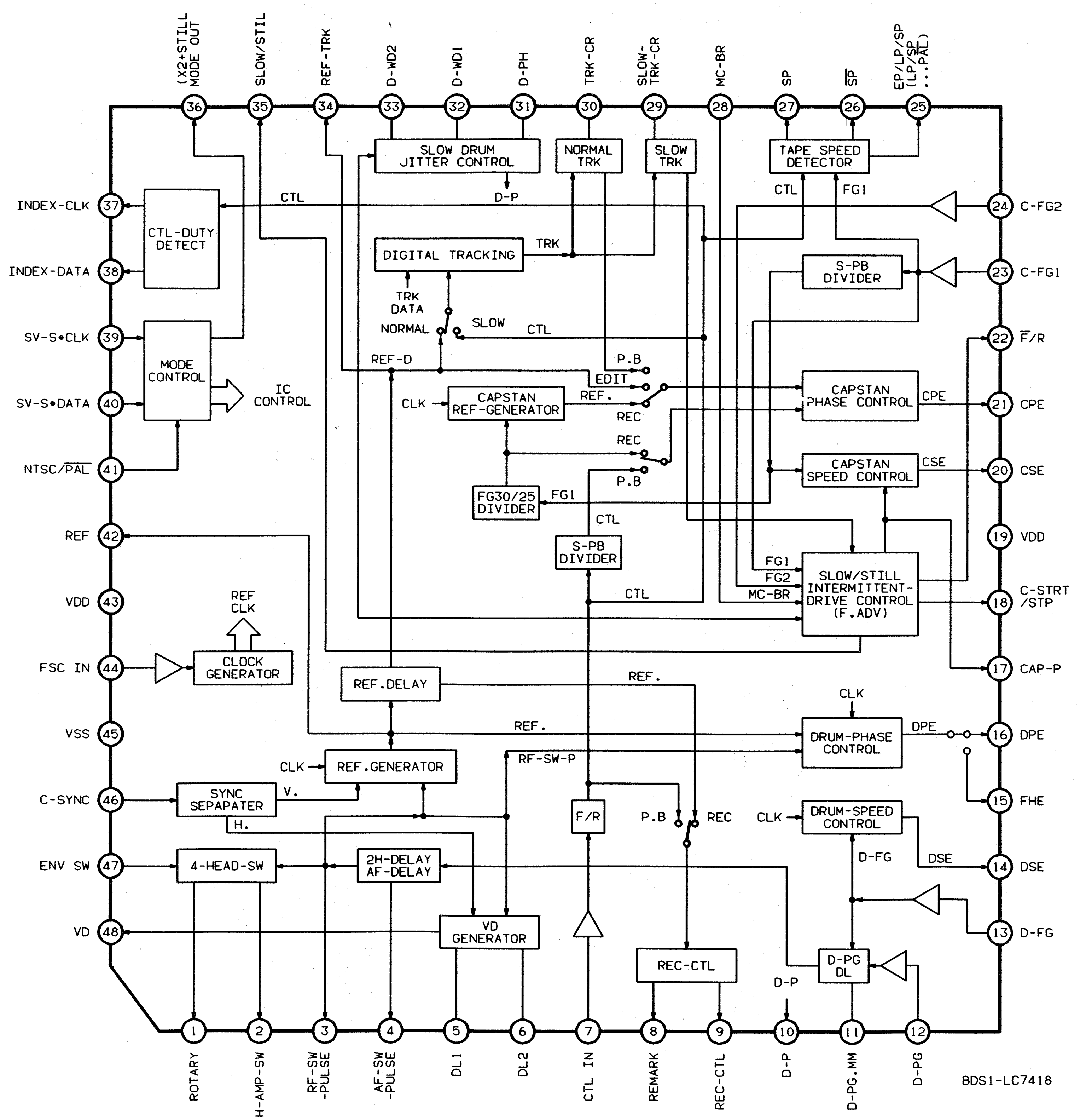
CP-1 BOARD (SY-A) SYSTEM CONTROL CIRCUIT DIAGRAM


SY- A
Y1-12542/RP4-GF
NOTE
The SY-7 circuit diagram is shown in page 44 ~ 45
CN303
T.TOP.S.
GND
T.END.S.
GND
FL START SW
GND
TO MECHANISM
CN302
SAFETY SW
S.REEL.P.
SWD 5V
T.REEL.P.
TO MC-1 CN802
CN304
SWD 5V
BACK UP 5V
SSB CLK
SSB DATA
PICTURE
ALWAYS 5V
AC 4V
AC 4V
ALWAYS -30V
GND
TO TM-1 CN711
CN301
SW DATA 2
SW DATA 1
SW DATA 3
ML (+)
ML (-)
DEW S.
TO MC-3 CN822
SY-7
C3001 0.047F/5.5
R3001 3.3 1/2W
R3203 4.7K
R3008 4.7K
R3007 3.9K
R3006 1.5K
R3005 1.5K
B3001 2SC3402 SWITCH
POWER UP H
R3202 4.7K
IC301
μPD75516GF-117-3B9
C.P.U.
XF301
R3011 1K
R3012 1K
R3014 1K
R3016 10K
R3020 4.7K
R3004 10K
D3003 1SS133
D3002 1SS133
R3002 4.7K
R3003 4.7K
R3022 220K
R3024 820K
C3002 220/6.3
C3003 0.1
R3017 4.7K
R3206 20K
R3207 2.7K
R3209 4.7K
R3019 10K
R3018 (T.S.) 220K
R3010 (0/1C) 220K
R3009 (C-FG1) 220K
R3013 (RF) 220K
R3015 (0/1D) 220K
PICTURE
S PLAY(VD)
LP
PB Y
PB
REC
INPUT SEL V
8 PIN
TO VD-A
PB
REC
INPUT SEL V
A MUTE
LP
TO AD-A
REC
REF
0/1 DATA
0/1 CLK
MC BR
SV S DATA
SV S CLK
RF SW P
T.SPEED
C-FG1
4K PWM
FF•REW
TO SV-A
ALWAYS 5V
TO TN-A
POWER UP
ALWAYS 5V
GND
ALWAYS 13V(MC)
GND(MC)
ALWAYS -30V
AC 4V
AC 4V
SWD 5V
TO PW-A
INDEX-CLK
INDEX-DATA
SV-S•CLK
SV-S•DATA
NTSC/PAL
REF
VDD
FSC IN
VSS
C-SYNC
ENV SW
VD

STEM CONTROL CIRCUIT DIAGRAM

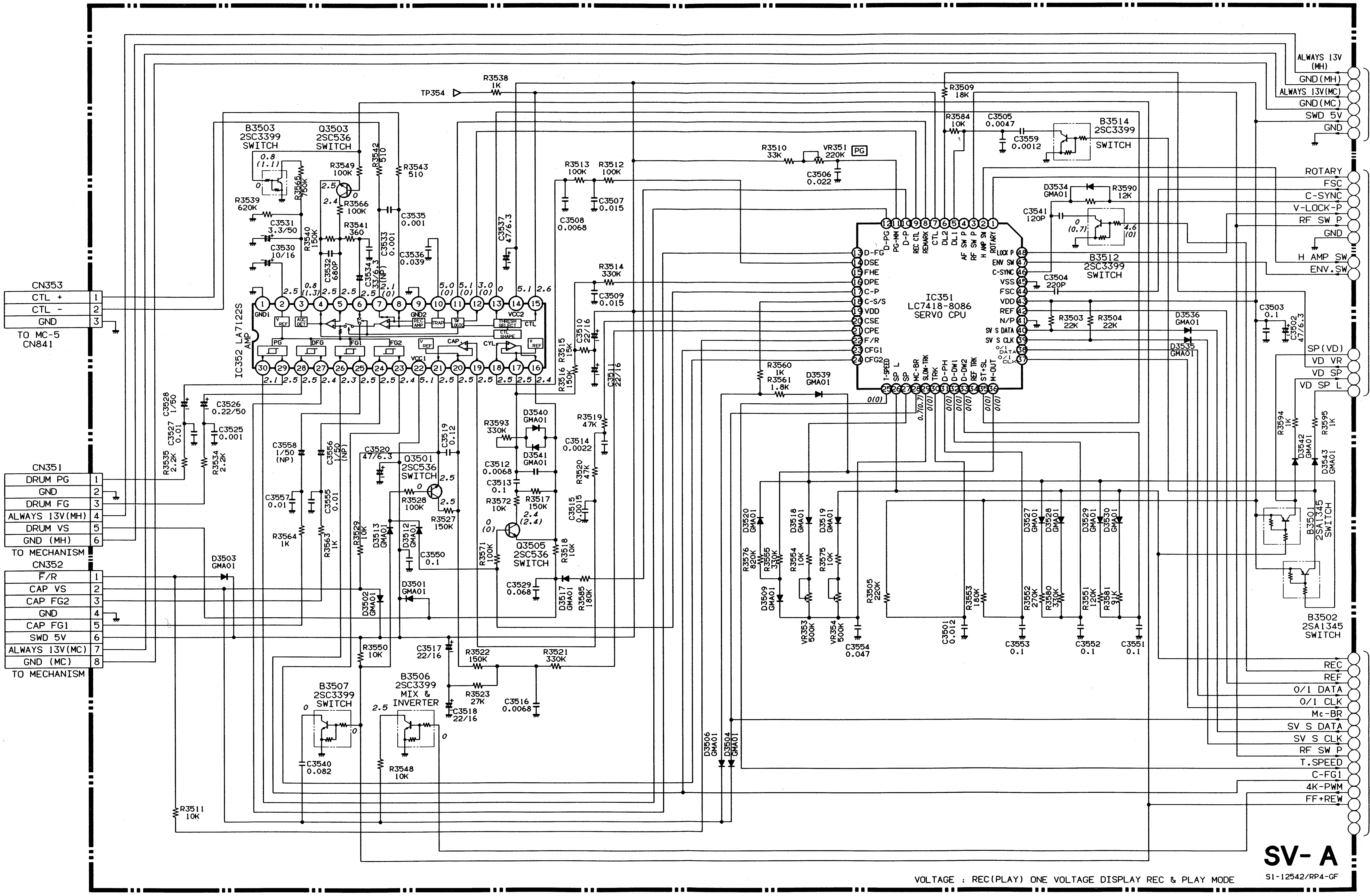

PICTURE
S PLAY(VD)
LP
PB Y
PB
REC
INPUT SEL V
8 PIN
R3007 3.9K
R3006 1.5K
R3005 1.5K
B3001 2SC3402 SWITCH
POWER UP H
TO VD-A
R3202 4.7K
PB
REC
INPUT SEL V
A MUTE
LP
TO AD-A
IC301 μPD75516GF-117-3B9 C.P.U.
FL.START.SW
REF
SW DATA 1
SW DATA 2
SW DATA 3
SAFETY SW
GND
POWER UP
FF+REW
PB
ANT/VTR
S+S
REC
S.PLAY
VISS OP
DOC OFF
8PIN
MC-BR
INS ON INV(N.P OUT ON)
C.FG.P
T.REEL.P
0/1 CLK
S.REEL.P
SSB DATA
SSB CLK
RF.SW.P
GND
GND
GND
OSC 1
OSC 2
RESET
0/1 DATA
ATR ON
DOC P
4K-PWM
SV.S.CLK
SV.S.DATA
SLOW P
A.MUTE
A.REC.MUTE
INPUT SEL V
INSERT
N.ADV.P
VDD
VDD
AV.REF
T.END.S
LP
ML M
ML L
ML R
ML F
GND
N/P LP OP
T.SPEED
OEM OP
HIFI ENV.
ENV
DEW.S
T.TOP.S
R3004 10K
D3003 1SS133
D3002 1SS133
R3002 4.7K
R3003 4.7K
R3022 220K
R3024 820K
C3002 220/6.3
C3003 0.1
R3017 4.7K
R3019 10K
R3209 4.7K
REC
REF
0/1 DATA
0/1 CLK
MC BR
SV S DATA
SV S CLK
RF SW P
T.SPEED
C-FG1
4K PWM
FF+REW
TO SV-A
ALWAYS 5V
TO TN-A
POWER UP
ALWAYS 5V
GND
ALWAYS 13V(MC)
GND(MC)
ALWAYS -30V
AC 4V
AC 4V
SWD 5V
TO PW-A
R3018 (T.S.) 220K
R3010 (0/1C) 220K
R3009 (C-FG1) 220K
R3013 (RF) 220K
R3015 (0/1D) 220K

IC351 (LC7418) DIGITAL SERVO IC INTER BLOCK DIAGRAM


(X2+STILL MODE OUT
SLOW/STIL
REF-TRK
D-WD2
D-WD1
D-PH
TRK-CR
SLOW-TRK-CR
MC-BR
SP
SP
EP/LP/SP (LP/SP ...PAL)
INDEX-CLK
INDEX-DATA
SV-S•CLK
SV-S•DATA
NTSC/PAL
REF
VDD
FSC IN
VSS
C-SYNC
ENV SW
VD
C-FG2
C-FG1
F/R
CPE
CSE
VDD
C-STRT /STP
CAP-P
DPE
FHE
DSE
D-FG
ROTARY
H-AMP-SW
RF-SW -PULSE
AF-SW -PULSE
DL1
DL2
CTL IN
REMARK
REC-CTL
D-P
D-PG.MM
D-PG
SLOW DRUM JITTER CONTROL
NORMAL TRK
SLOW TRK
TAPE SPEED DETECTOR
CTL-DUTY DETECT
CTL
D-P
CTL
FG1
DIGITAL TRACKING
TRK
S-PB DIVIDER
TRK DATA
NORMAL
SLOW
CTL
MODE CONTROL
IC CONTROL
REF-D
P.B
EDIT
REF.
CLK
CAPSTAN REF-GENERATOR
REC
REC
P.B
CAPSTAN PHASE CONTROL
CPE
CAPSTAN SPEED CONTROL
CSE
FG30/25 DIVIDER
FG1
CTL
S-PB DIVIDER
CTL
FG1
FG2
MC-BR
SLOW/STILL INTERMITTENT-DRIVE CONTROL (F.ADV)
REF CLK
CLOCK GENERATOR
REF.DELAY
REF.
CLK
REF.
DRUM-PHASE CONTROL
DPE
CLK
REF.GENERATOR
RF-SW-P
SYNC SEPAPATER
V.
H.
F/R
P.B
REC
CLK
DRUM-SPEED CONTROL
D-FG
DSE
4-HEAD-SW
2H-DELAY AF-DELAY
VD GENERATOR
REC-CTL
D-PG DL
D-P
BDS1-LC7418

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

CP-1 BOARD (SV-A) SERVO CIRCUIT DIAGRAM


CN353
CTL +
CTL -
GND
TO MC-5 CN841
CN351
DRUM PG
GND
DRUM FG
ALWAYS 13V(MH)
DRUM VS
GND (MH)
TO MECHANISM
CN352
F/R
CAP VS
CAP FG2
GND
CAP FG1
SWD 5V
ALWAYS 13V(MC)
GND (MC)
TO MECHANISM
IC352 LA7122S AMP
IC351 LC7418-8086 SERVO CPU
B3503 2SC3399 SWITCH
Q3503 2SC536 SWITCH
Q3501 2SC536 SWITCH
Q3505 2SC536 SWITCH
B3507 2SC3399 SWITCH
B3506 2SC3399 MIX & INVERTER
B3514 2SC3399 SWITCH
B3512 2SC3399 SWITCH
B3501 2SA1345 SWITCH
B3502 2SA1345 SWITCH
TP354
R3538 1K
R3509 18K
R3584 10K
C3505 0.0047
C3559 0.0012
R3510 33K
VR351 220K
PG
C3506 0.022
R3513 100K
R3512 100K
C3507 0.015
C3508 0.0068
R3514 330K
C3509 0.015
D3534 GMA01
R3590 12K
C3541 120P
C3504 220P
R3503 22K
R3504 22K
D3536 GMA01
D3535 GMA01
C3503 0.1
C3502 47/6.3
R3560 1K
R3561 1.8K
D3539 GMA01
R3594 1K
R3595 1K
D3542 GMA01
D3543 GMA01
ALWAYS 13V (MH)
GND(MH)
ALWAYS 13V(MC)
GND(MC)
SWD 5V
GND
TO PW-A
ROTARY
FSC
C-SYNC
V-LOCK-P
RF SW P
GND
H AMP SW
ENV.SW
TO VD-A
SP(VD)
VD VR
VD SP
VD SP L
REC
REF
0/1 DATA
0/1 CLK
Mc-BR
SV S DATA
SV S CLK
RF SW P
T.SPEED
C-FG1
4K-PWM
FF+REW
TO SY-A
D-PG
PG-MM
D-P
REC CTL
REMARK
CTL
DL2
DL1
AF SW P
RF SW P
H AMP SW
ROTARY
LOCK P
ENV SW
C-SYNC
VSS
FSC
VDD
REF
N/P
SV S DATA
SV S CLK
0/1 DATA
0/1 CLK
D-FG
DSE
FHE
DPE
C-P
C-S/S
VDD
CSE
CPE
F/R
CFG1
CFG2
T-SPEED
SP L
SP
MC-BR
SLOW-TRK
TRK
D-PH
D-DW1
D-DW2
REF TRK
ST+SL
M-OUT
R3539 620K
R3565 750K
C3531 3.3/50
C3530 10/16
R3540 150K
C3532 680P
R3549 100K
R3566 100K
R3541 360
R3542 510
R3543 510
C3535 0.001
C3533 0.001
C3534 33/6.3 (NP)
C3536 0.039
C3537 47/6.3
C3528 1/50
C3526 0.22/50
C3527 0.01
C3525 0.001
R3535 2.2K
R3534 2.2K
C3558 1/50 (NP)
C3556 1/50 (NP)
C3520 47/6.3
C3519 0.12
C3557 0.01
C3555 0.01
R3528 100K
R3527 150K
R3564 1K
R3563 1K
R3529 10K
D3513 GMA01
D3512 GMA01
C3550 0.1
D3501 GMA01
D3502 GMA01
D3503 GMA01
R3550 10K
C3517 22/16
R3522 150K
R3521 330K
R3523 27K
C3518 22/16
C3516 0.0068
C3540 0.082
R3548 10K
R3511 10K
C3510 22/16
R3515 15K
R3516 150K
C3511 22/16
R3593 330K
D3540 GMA01
D3541 GMA01
C3512 0.0068
C3513 0.1
R3572 10K
R3517 150K
R3519 47K
C3514 0.0022
R3520 47K
C3515 0.0015
R3518 10K
R3571 100K
C3529 0.068
D3517 GMA01
R3585 180K
D3520 GMA01
D3518 GMA01
D3519 GMA01
R3576 820K
R3555 330K
R3554 10K
R3575 10K
D3509 GMA01
VR353 500K
VR354 500K
R3505 220K
C3554 0.047
C3501 0.012
R3553 180K
C3553 0.1
D3527 GMA01
D3528 GMA01
D3529 GMA01
D3530 GMA01
R3552 27K
R3580 330K
R3551 120K
R3581 91K
C3552 0.1
C3551 0.1
D3506 GMA01
D3504 GMA01
SV- A
VOLTAGE : REC(PLAY) ONE VOLTAGE DISPLAY REC & PLAY MODE
S1-12542/RP4-GF
K
J
I
H
G
F
E
D
C
B
A
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16

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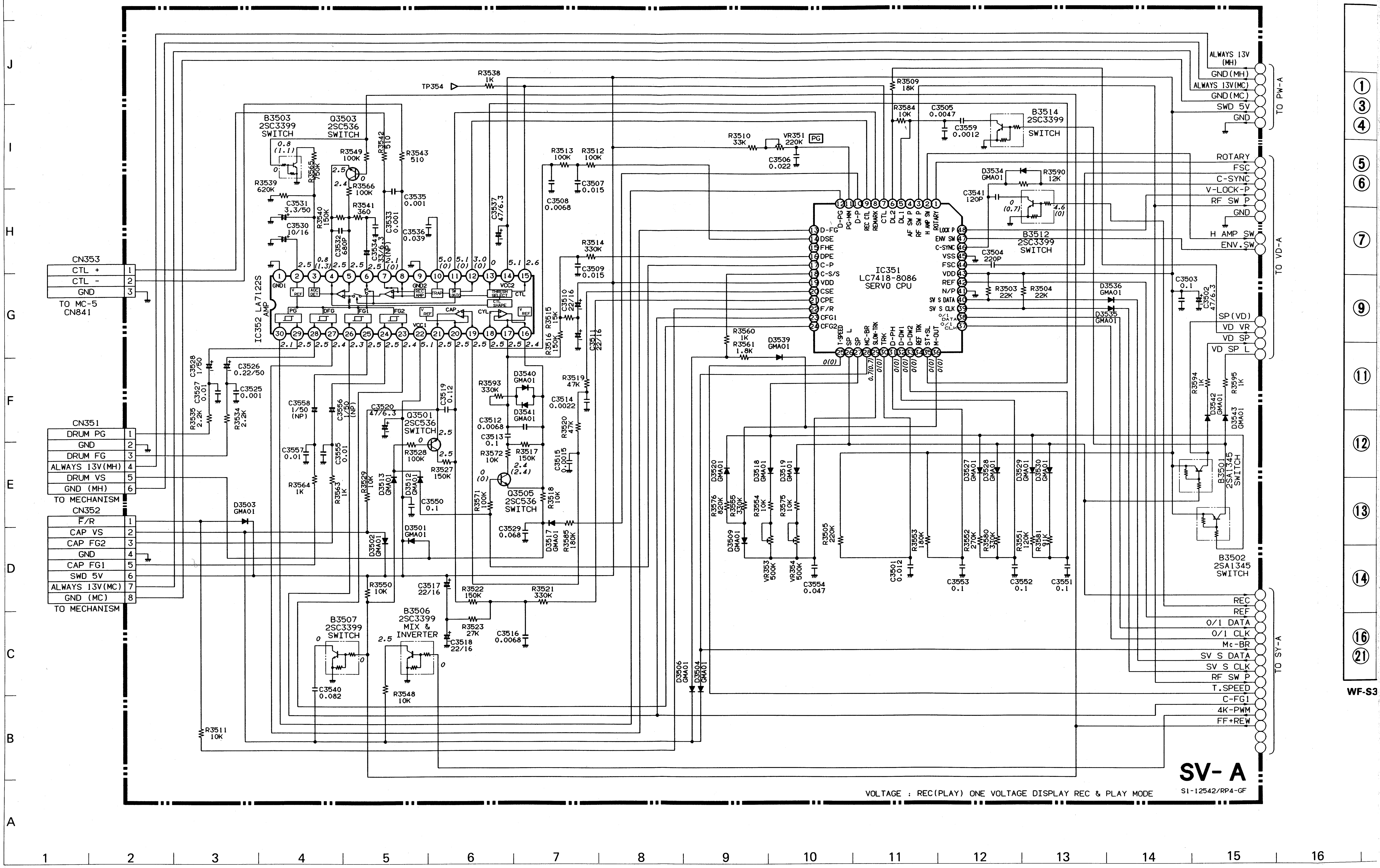
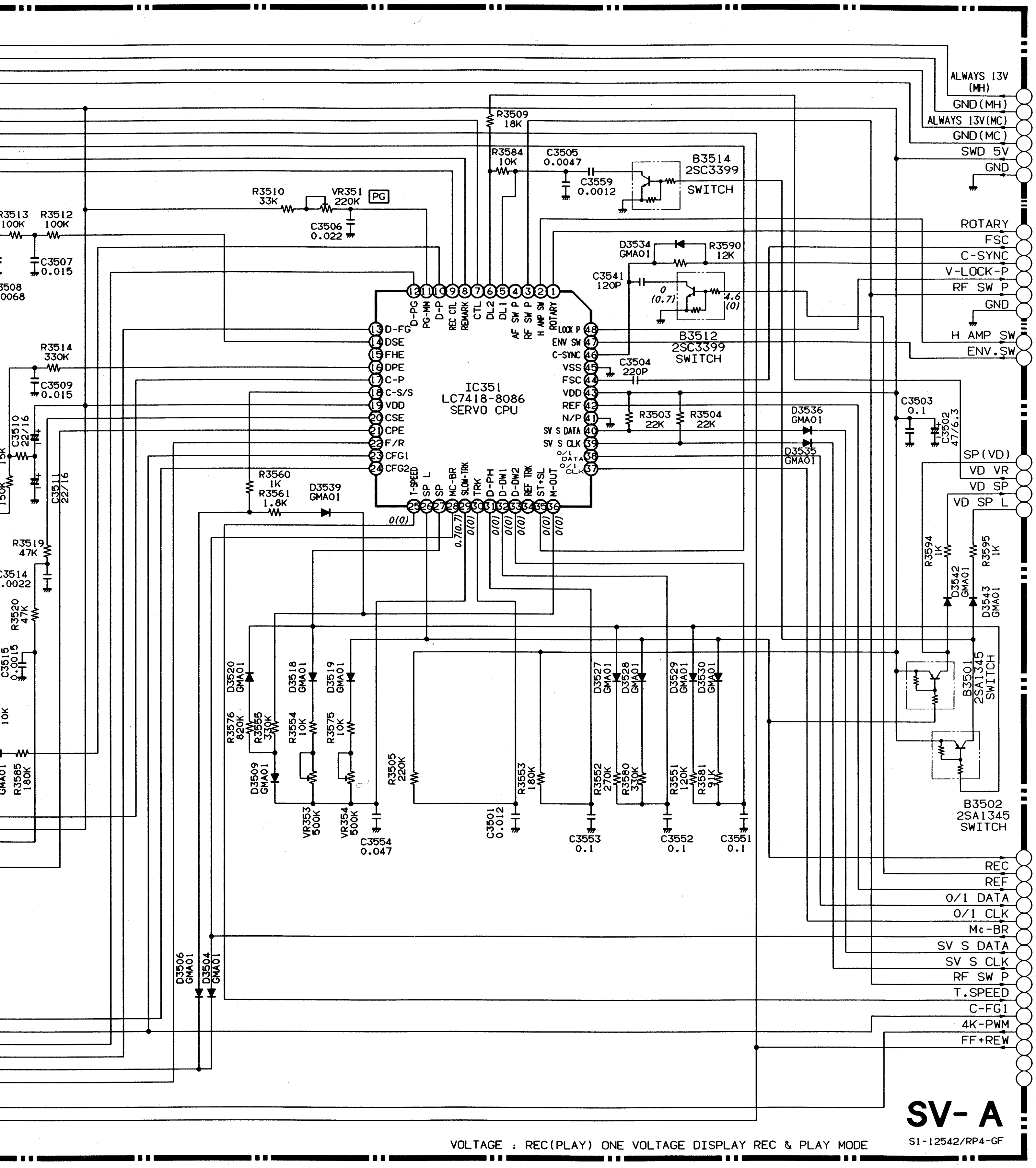
WF-S3

CP-1 BOARD (SV-A) SERVO CIRCUIT DIAGRAM

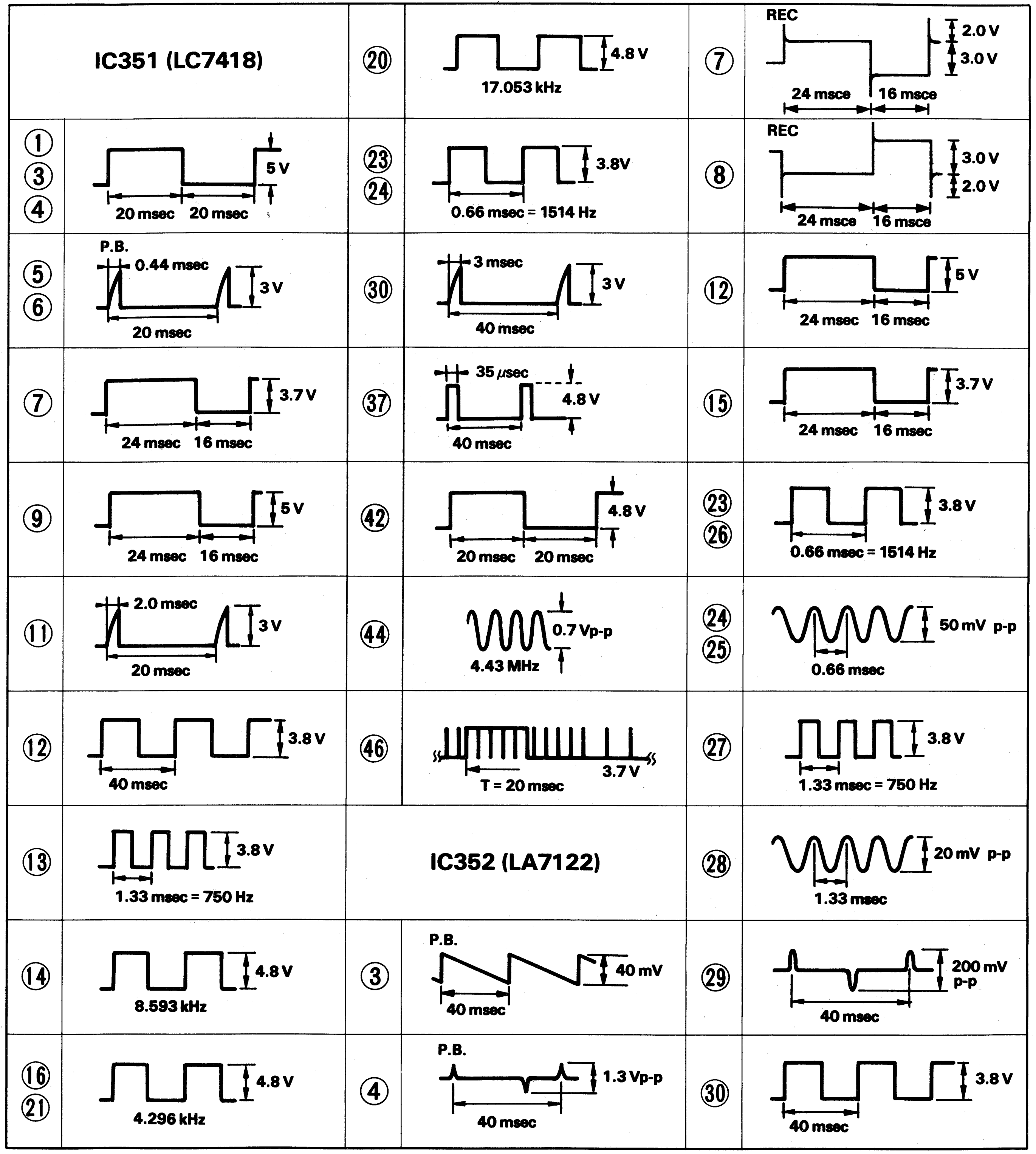

IC351 LC7418-8086 SERVO CPU
IC352 LA7122S AMP
B3503 2SC3399 SWITCH
Q3503 2SC536 SWITCH
Q3501 2SC536 SWITCH
Q3505 2SC536 SWITCH
B3507 2SC3399 SWITCH
B3506 2SC3399 MIX & INVERTER
B3514 2SC3399 SWITCH
B3512 2SC3399 SWITCH
B3501 2SA1345 SWITCH
B3502 2SA1345 SWITCH
CN353
CTL +
CTL -
GND
TO MC-5 CN841
CN351
DRUM PG
GND
DRUM FG
ALWAYS 13V(MH)
DRUM VS
GND (MH)
TO MECHANISM
CN352
F/R
CAP VS
CAP FG2
GND
CAP FG1
SWD 5V
ALWAYS 13V(MC)
GND (MC)
TO MECHANISM
ALWAYS 13V (MH)
GND(MH)
ALWAYS 13V(MC)
GND(MC)
SWD 5V
GND
TO PW-A
ROTARY
FSC
C-SYNC
V-LOCK-P
RF SW P
GND
H AMP SW
ENV.SW
TO VD-A
SP(VD)
VD VR
VD SP
VD SP L
REC
REF
0/1 DATA
0/1 CLK
Mc-BR
SV S DATA
SV S CLK
RF SW P
T.SPEED
C-FG1
4K-PWM
FF+REW
TO SY-A
TP354
R3538 1K
R3509 18K
R3584 10K
C3505 0.0047
C3559 0.0012
R3510 33K
VR351 220K
PG
C3506 0.022
R3513 100K
R3512 100K
C3507 0.015
C3508 0.0068
R3514 330K
C3509 0.015
D3534 GMA01
R3590 12K
C3541 120P
C3504 220P
R3503 22K
R3504 22K
D3536 GMA01
D3535 GMA01
C3503 0.1
C3502 47/6.3
R3560 1K
R3561 1.8K
D3539 GMA01
R3549 100K
R3542 510
R3543 510
R3565 750K
R3539 620K
R3566 100K
C3531 3.3/50
C3530 10/16
R3541 360
R3540 150K
C3532 680P
C3535 0.001
C3533 0.001
C3536 0.039
C3534 33/6.3
C3537 47/6.3
C3510 22/16
R3515 15K
R3516 150K
C3511 22/16
C3528 1/50
C3526 0.22/50
C3527 0.01
C3525 0.001
R3535 2.2K
R3534 2.2K
C3558 1/50 (NP)
C3556 1/50 (NP)
C3520 47/6.3
C3519 0.12
D3540 GMA01
R3593 330K
D3541 GMA01
C3514 0.0022
R3519 47K
C3512 0.0068
C3513 0.1
R3572 10K
R3517 150K
R3520 47K
C3515 0.0015
C3557 0.01
C3555 0.01
R3528 100K
R3527 150K
R3564 1K
R3563 1K
R3529 10K
D3513 GMA01
D3512 GMA01
C3550 0.1
R3571 100K
R3518 10K
D3503 GMA01
D3502 GMA01
D3501 GMA01
C3529 0.068
D3517 GMA01
R3585 180K
R3550 10K
C3517 22/16
R3522 150K
R3521 330K
R3523 27K
C3516 0.0068
C3518 22/16
C3540 0.082
R3548 10K
R3511 10K
D3520 GMA01
D3518 GMA01
D3519 GMA01
R3576 820K
R3555 330K
R3554 10K
R3575 10K
D3509 GMA01
VR353 500K
VR354 500K
C3554 0.047
R3505 220K
C3501 0.012
R3553 180K
C3553 0.1
D3527 GMA01
D3528 GMA01
D3529 GMA01
D3530 GMA01
R3552 270K
R3580 330K
R3551 120K
R3581 91K
C3552 0.1
C3551 0.1
R3594 1K
R3595 1K
D3542 GMA01
D3543 GMA01
D3506 GMA01
D3504 GMA01
SV- A
VOLTAGE : REC(PLAY) ONE VOLTAGE DISPLAY REC & PLAY MODE
S1-12542/RP4-GF
① ③ ④ ⑤ ⑥ ⑦ ⑨ ⑪ ⑫ ⑬ ⑭ ⑯ ㉑
WF-S3

RD (SV-A) SERVO CIRCUIT DIAGRAM


IC351
LC7418-8086
SERVO CPU
B3514
2SC3399
SWITCH
B3512
2SC3399
SWITCH
B3501
2SA1345
SWITCH
B3502
2SA1345
SWITCH
R3509 18K
R3584 10K
C3505 0.0047
C3559 0.0012
R3510 33K
VR351 220K
PG
C3506 0.022
R3513 100K
R3512 100K
C3507 0.015
R3514 330K
C3509 0.015
D3534 GMA01
R3590 12K
C3541 120P
C3504 220P
R3503 22K
R3504 22K
D3536 GMA01
D3535 GMA01
C3503 0.1
C3502 47/6.3
R3560 1K
R3561 1.8K
D3539 GMA01
R3519 47K
C3514 .0022
R3520 47K
C3515 0.0015
D3520 GMA01
D3518 GMA01
D3519 GMA01
R3576 820K
R3555 330K
R3554 10K
R3575 10K
D3509 GMA01
VR353 500K
VR354 500K
C3554 0.047
R3505 220K
R3553 180K
C3501 0.012
D3527 GMA01
D3528 GMA01
D3529 GMA01
D3530 GMA01
R3552 270K
R3580 330K
R3551 120K
R3581 91K
C3553 0.1
C3552 0.1
C3551 0.1
R3594 1K
R3595 1K
D3542 GMA01
D3543 GMA01
D3506 GMA01
D3504 GMA01
R3585 180K
ALWAYS 13V (MH)
GND (MH)
ALWAYS 13V (MC)
GND (MC)
SWD 5V
GND
TO PW-A
ROTARY
FSC
C-SYNC
V-LOCK-P
RF SW P
GND
H AMP SW
ENV. SW
TO VD-A
SP (VD)
VD VR
VD SP
VD SP L
REC
REF
0/1 DATA
0/1 CLK
Mc-BR
SV S DATA
SV S CLK
RF SW P
T. SPEED
C-FG1
4K-PWM
FF+REW
TO SY-A
SV- A
S1-12542/RP4-GF

VOLTAGE : REC(PLAY) ONE VOLTAGE DISPLAY REC & PLAY MODE

WAVEFORM OF SERVO

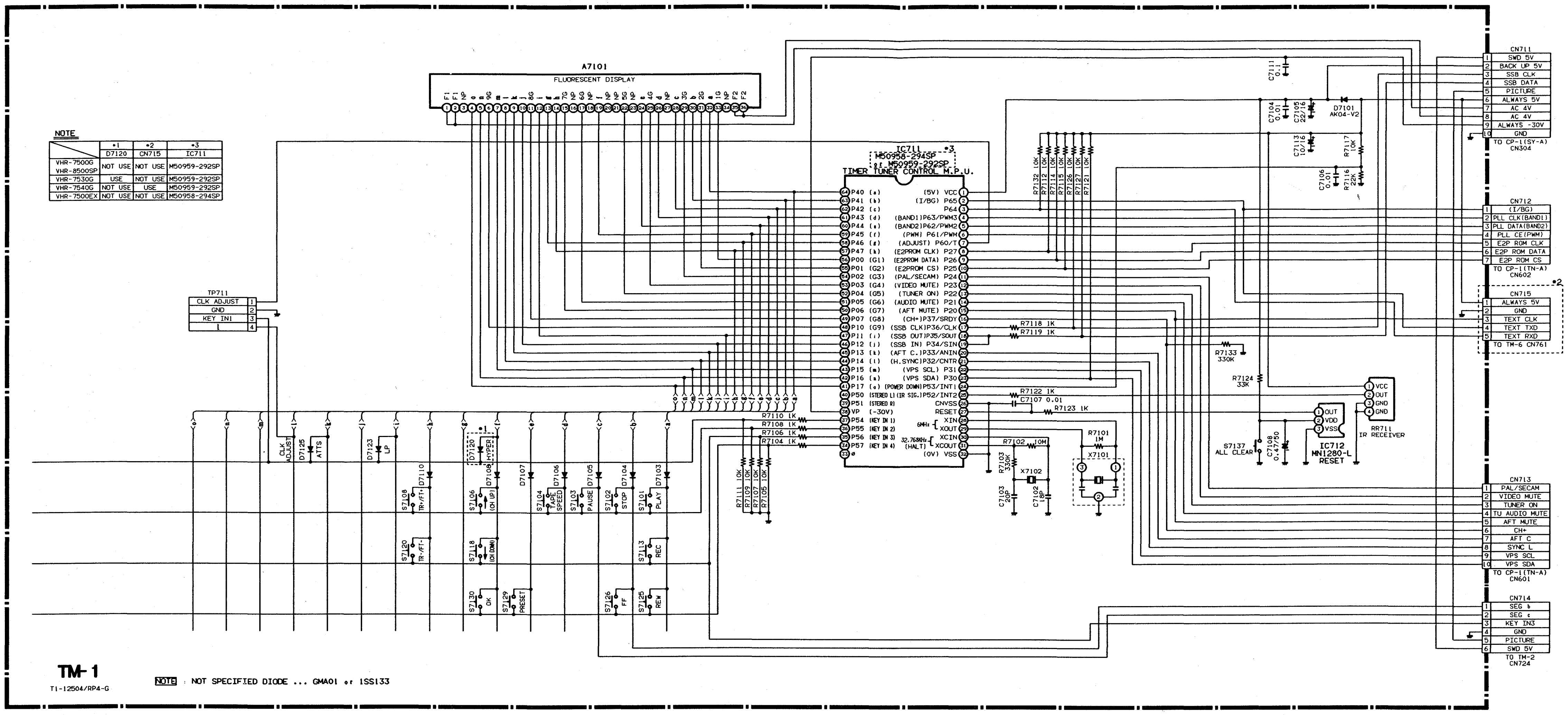

IC351 (LC7418)
① ③ ④ 5 V 20 msec 20 msec
⑤ ⑥ P.B. 0.44 msec 3 V 20 msec
⑦ 3.7 V 24 msec 16 msec
⑨ 5 V 24 msec 16 msec
⑪ 2.0 msec 3 V 20 msec
⑫ 3.8 V 40 msec
⑬ 3.8 V 1.33 msec = 750 Hz
⑭ 4.8 V 8.593 kHz
⑯ ㉑ 4.8 V 4.296 kHz
⑳ 4.8 V 17.053 kHz
㉓ ㉔ 3.8 V 0.66 msec = 1514 Hz
㉚ 3 msec 3 V 40 msec
㊲ 35 μsec 4.8 V 40 msec
㊷ 4.8 V 20 msec 20 msec
㊹ 0.7 Vp-p 4.43 MHz
㊻ 3.7 V T = 20 msec
IC352 (LA7122)
③ P.B. 40 mV 40 msec
④ P.B. 1.3 Vp-p 40 msec
⑦ REC 2.0 V 3.0 V 24 msce 16 msce
⑧ REC 3.0 V 2.0 V 24 msce 16 msce
⑫ 5 V 24 msec 16 msec
⑮ 3.7 V 24 msec 16 msec
㉓ ㉖ 3.8 V 0.66 msec = 1514 Hz
㉔ ㉕ 50 mV p-p 0.66 msec
㉗ 3.8 V 1.33 msec = 750 Hz
㉘ 20 mV p-p 1.33 msec
㉙ 200 mV p-p 40 msec
㉚ 3.8 V 40 msec

WF-S3

TM-1 BOARD DISPLAY, TIMER & TUNING CONTROL CIRCUIT DIAGRAM

NOTE

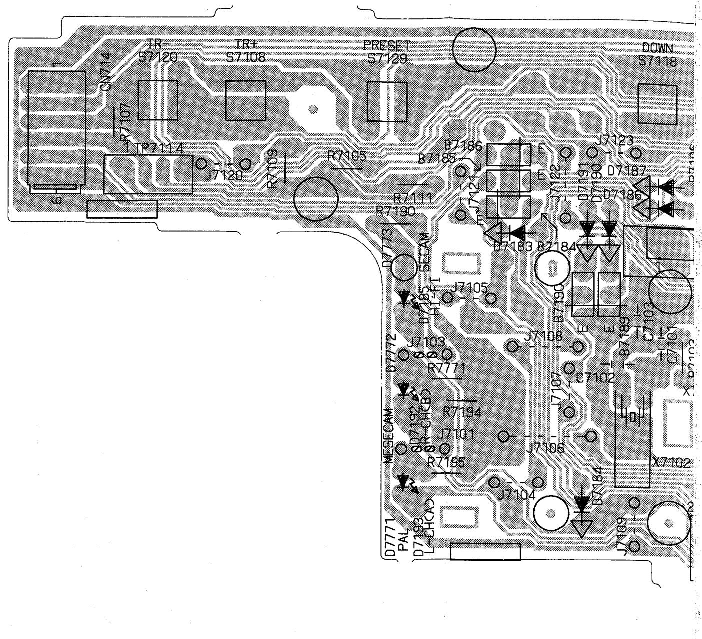
	*1 D7120	*2 CN715	*3 IC711
VHR-7500G VHR-8500SP	NOT USE	NOT USE	M50959-292SP
VHR-7530G	USE	NOT USE	M50959-292SP
VHR-7540G	NOT USE	USE	M50959-292SP
VHR-7500EX	NOT USE	NOT USE	M50958-294SP

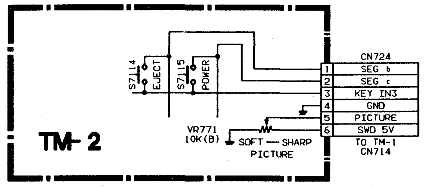

A7101
FLUORESCENT DISPLAY
IC711 *3
M50958-294SP
or M50959-292SP
TIMER TUNER CONTROL M.P.U.
64 P40 (a) — (5V) VCC 1
63 P41 (b) — (I/BG) P65 2
62 P42 (c) — P64 3
61 P43 (d) — (BAND1) P63/PWM3 4
60 P44 (e) — (BAND2) P62/PWM2 5
59 P45 (f) — (PWM) P61/PWM 6
58 P46 (g) — (ADJUST) P60/T 7
57 P47 (h) — (E2PROM CLK) P27 8
56 P00 (G1) — (E2PROM DATA) P26 9
55 P01 (G2) — (E2PROM CS) P25 10
54 P02 (G3) — (PAL/SECAM) P24 11
53 P03 (G4) — (VIDEO MUTE) P23 12
52 P04 (G5) — (TUNER ON) P22 13
51 P05 (G6) — (AUDIO MUTE) P21 14
50 P06 (G7) — (AFT MUTE) P20 15
49 P07 (G8) — (CH+) P37/SRDY 16
48 P10 (G9) — (SSB CLK) P36/CLK 17
47 P11 (i) — (SSB OUT) P35/SOUT 18
46 P12 (j) — (SSB IN) P34/SIN 19
45 P13 (k) — (AFT C.) P33/ANIN 20
44 P14 (l) — (H.SYNC) P32/CNTR 21
43 P15 (m) — (VPS SCL) P31 22
42 P16 (n) — (VPS SDA) P30 23
41 P17 (o) — (POWER DOWN) P53/INT1 24
40 P50 (STEREO L) — (IR SIG.) P52/INT2 25
39 P51 (STEREO R) — CNVSS 26
38 VP (-30V) — RESET 27
37 P54 (KEY IN 1) — XIN 28
36 P55 (KEY IN 2) — XOUT 29
35 P56 (KEY IN 3) — XCIN 30
34 P57 (KEY IN 4) — XCOUT 31
33 ø — (0V) VSS 32
6MHz
32.768KHz (HALT)
TP711
1 CLK ADJUST
2 GND
3 KEY IN1
4 L
CLK ADJUST
D7125 ATTS
D7123 LP
D7120 HYPER *1
D7110 D7108 D7107 D7106 D7105 D7104 D7103
S7108 TR-/FT-
S7106 CH UP
S7104 TAPE SPEED
S7103 PAUSE
S7102 STOP
S7101 PLAY
S7120 TR-/FT-
S7118 CH DOWN
S7113 REC
S7130 OK
S7129 PRESET
S7126 FF
S7125 REW
R7110 1K
R7108 1K
R7106 1K
R7104 1K
R7111 10K R7109 10K R7107 10K R7105 10K
R7132 R7112 R7114 R7126 R7120 R7121 R7127 10K
R7118 1K
R7119 1K
R7133 330K
R7124 33K
R7122 1K
C7107 0.01
R7123 1K
R7102 10M
R7103 330K
C7103 20P
X7102
C7102 15P
R7101 1M
X7101
C7111 0.1
C7104 0.01
C7105 22μ 6.3V
D7101 AK04-V2
C7113 10μ 16V
R7117 10K
C7106 0.01
R7116 22K
S7137 ALL CLEAR
C7108 0.47/50
IC712 MN1280-L RESET
1 OUT 2 VDD 3 VSS
RR711 IR RECEIVER
1 VCC 2 OUT 3 GND 4 GND
CN711
1 SWD 5V
2 BACK UP 5V
3 SSB CLK
4 SSB DATA
5 PICTURE
6 ALWAYS 5V
7 AC 4V
8 AC 4V
9 ALWAYS -30V
10 GND
TO CP-1(SY-A) CN304
CN712
1 (I/BG)
2 PLL CLK(BAND1)
3 PLL DATA(BAND2)
4 PLL CE(PWM)
5 E2P ROM CLK
6 E2P ROM DATA
7 E2P ROM CS
TO CP-1(TN-A) CN602
*2
CN715
1 ALWAYS 5V
2 GND
3 TEXT CLK
4 TEXT TXD
5 TEXT RXD
TO TM-6 CN761
CN713
1 PAL/SECAM
2 VIDEO MUTE
3 TUNER ON
4 TU AUDIO MUTE
5 AFT MUTE
6 CH+
7 AFT C
8 SYNC L
9 VPS SCL
10 VPS SDA
TO CP-1(TN-A) CN601
CN714
1 SEG b
2 SEG c
3 KEY IN3
4 GND
5 PICTURE
6 SWD 5V
TO TM-2 CN724

TM-1

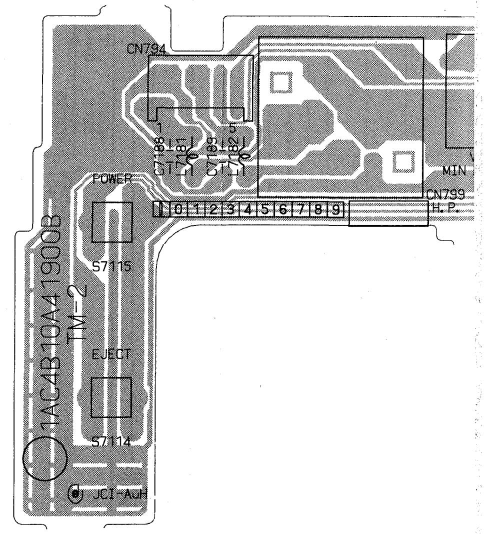
T1-12504/RP4-G

NOTE : NOT SPECIFIED DIODE ... GMA01 or 1SS133


CN714
TR- S7120
TR+ S7108
PRESET S7129
DOWN S7118
TP7114
J7120
R7105
R7185
R7186
R7111
R7190
J7123
D7187
D7186
D7183
B7184
SECAM
J7105
J7108
J7103
R7771
D7772
D7773
R7184
J7101
R7195
J7106
J7104
D7771
PAL
MESECAM
X7102
C7102
J7109


S7114 EJECT
S7115 POWER
VR771 10K(B)
SOFT — SHARP
PICTURE
CN724
1 SEG b
2 SEG c
3 KEY IN3
4 GND
5 PICTURE
6 SWD 5V
TO TM-1 CN714

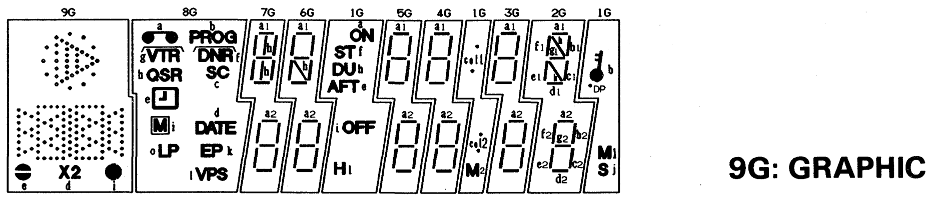
TM-2


CN794
POWER
CN799
H.P
MIN
S7115
EJECT
S7114
1AC4B10A4190B
TM-2
JCI-AJH
0 1 2 3 4 5 6 7 8 9

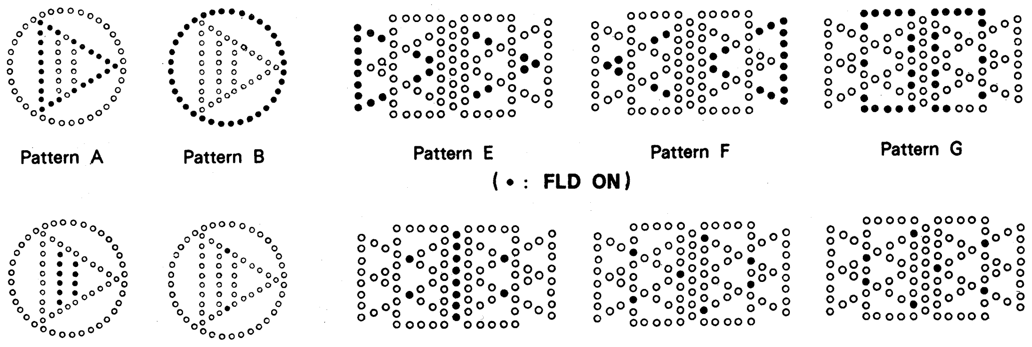
ANODE CONNECTION

	9G	8G	7G	6G	5G	4G	3G	2G	1G
a	B	●●	a1	a1	a1	a1	a1	a1	ON
b	A	PROG.	b1	b1	b1	b1	b1	b1	●
c	–	SC	c1	c1	c1	c1	c1	c1	DP
d	×2	DATE	d1	d1	d1	d1	d1	d1	M(1)
e	⊖	▣	e1	e1	e1	e1	e1	e1	AFT
f	C	DNR	f1	f1	f1	f1	f1	f1	ST
g	D	VTR	g1	g1	g1	g1	g1	g1	col·1
h	–	QSR	/	\	–	–	–	\	DU
i	●	[M]	a2	a2	a2	a2	a2	a2	OFF
j	E	–	b2	b2	b2	b2	b2	b2	S
k	I	EP	c2	c2	c2	c2	c2	c2	–
l	H	VPS	d2	d2	d2	d2	d2	d2	H
m	J	–	e2	e2	e2	e2	e2	e2	M(2)
n	F	–	f2	f2	f2	f2	f2	f2	–
o	G	LP	g2	g2	g2	g2	g2	g2	col·2

GRID ASSIGNMENT


9G
8G
7G
6G
1G
5G
4G
3G
2G
1G
X2
PROG
VTR
DNR
QSR
SC
DATE
LP
EP
VPS
ON
ST
DU
AFT
OFF
H
M
S
DP

9G: GRAPHIC MODE DISPLAY

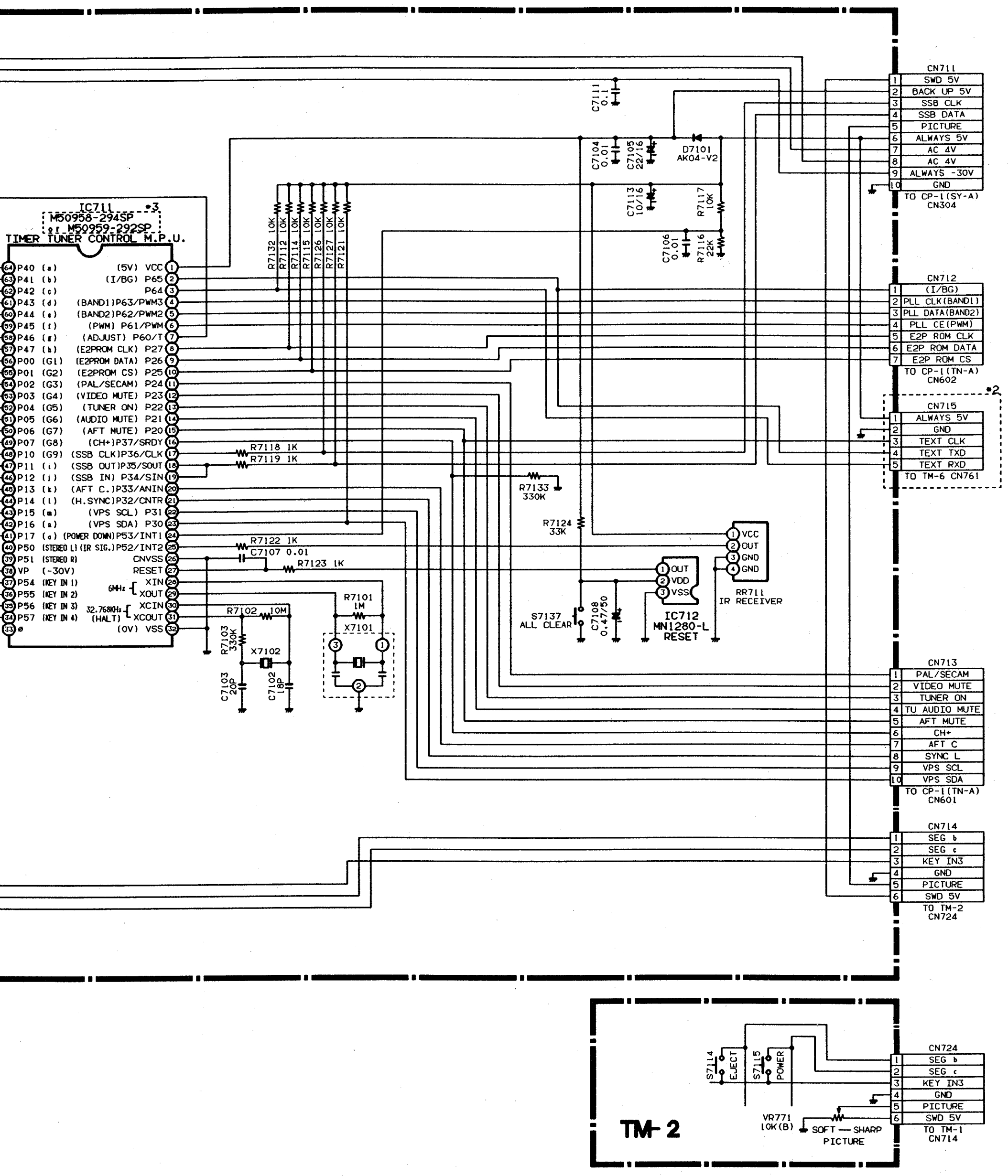


Pattern A Pattern B Pattern E Pattern F Pattern G

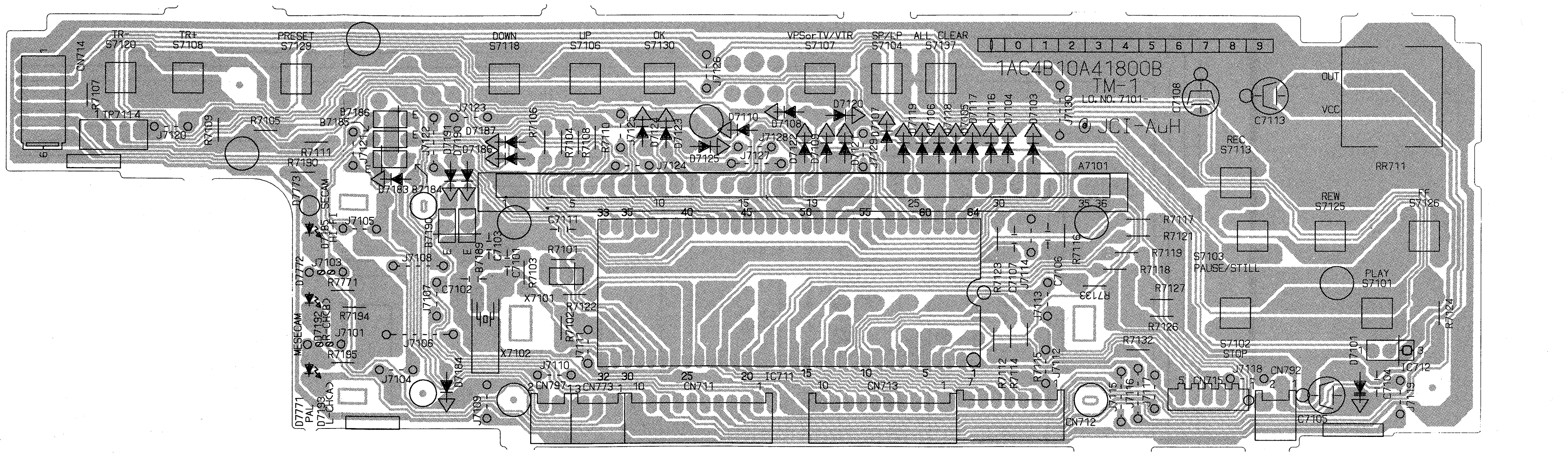
(• : FLD ON)

Pattern C Pattern D Pattern H Pattern I Pattern J

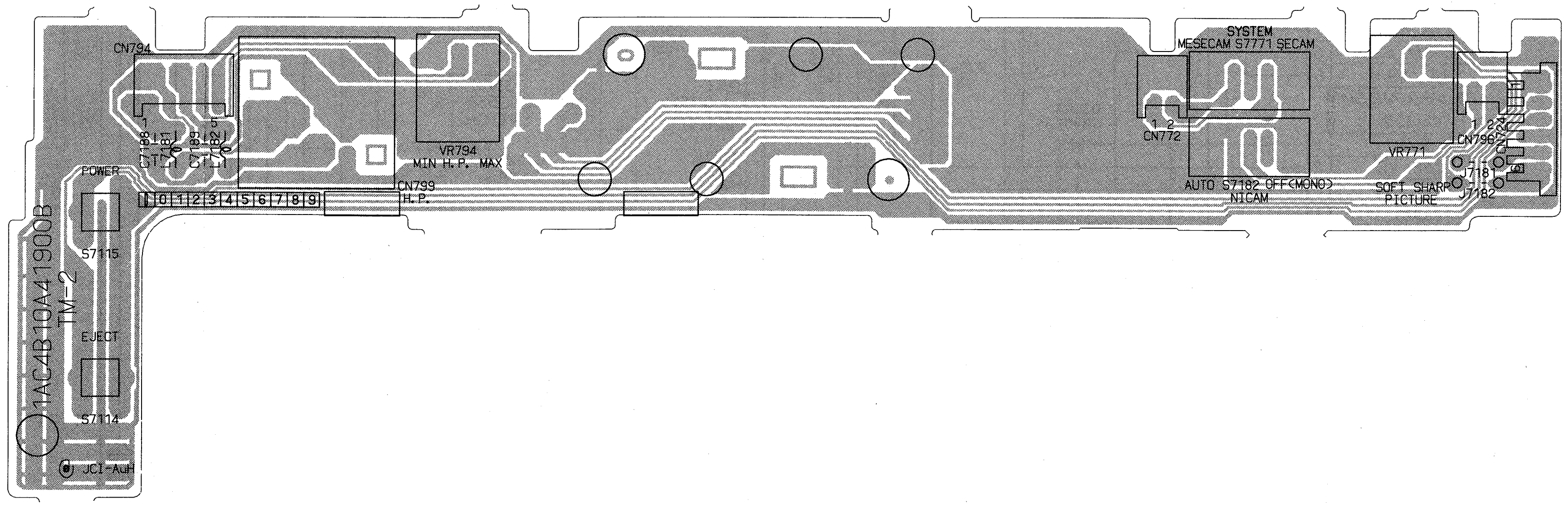
NTROL CIRCUIT DIAGRAM


IC711
M50956-294SP
M50959-292SP
TIMER TUNER CONTROL M.P.U.
CN711
SWD 5V
BACK UP 5V
SSB CLK
SSB DATA
PICTURE
ALWAYS 5V
AC 4V
AC 4V
ALWAYS -30V
GND
TO CP-1(SY-A) CN304
CN712
(I/BG)
PLL CLK(BAND1)
PLL DATA(BAND2)
PLL CE(PWM)
E2P ROM CLK
E2P ROM DATA
E2P ROM CS
TO CP-1(TN-A) CN602
CN715
ALWAYS 5V
GND
TEXT CLK
TEXT TXD
TEXT RXD
TO TM-6 CN761
CN713
PAL/SECAM
VIDEO MUTE
TUNER ON
TU AUDIO MUTE
AFT MUTE
CH+
AFT C
SYNC L
VPS SCL
VPS SDA
TO CP-1(TN-A) CN601
CN714
SEG b
SEG c
KEY IN3
GND
PICTURE
SWD 5V
TO TM-2 CN724
CN724
SEG b
SEG c
KEY IN3
GND
PICTURE
SWD 5V
TO TM-1 CN714
TM-2
S7114 EJECT
S7115 POWER
VR771 (OK(B)) SOFT — SHARP PICTURE
D7101 AK04-V2
S7137 ALL CLEAR
IC712 MN1280-L RESET
RR711 IR RECEIVER
X7101
X7102
R7118 1K
R7119 1K
R7133 330K
R7124 33K
R7122 1K
C7107 0.01
R7123 1K
R7101 1M
R7102 10M

TM-1 P.C.B.

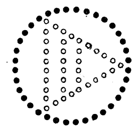

1AC4B10A41800B
TM-1
LO. NO. 7101-
JCI-AuH
TR- S7120
TR+ S7108
PRESET S7129
DOWN S7118
UP S7106
OK S7130
VPSorTV/VTR S7107
SP/LP S7104
ALL CLEAR S7137
REC S7113
REW S7125
FF S7126
PLAY S7101
S7103 PAUSE/STILL
S7102 STOP
RR711
IC711
A7101
CN711
CN712
CN713
CN714
CN715
CN792
CN797
X7101
X7102

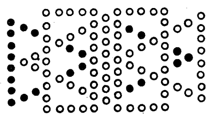
TM-2 P.C.B.

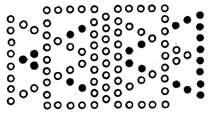

1AC4B10A41900B
TM-2
JCI-AuH
CN794
CN793 H.P.
VR794 MIN H.P. MAX
SYSTEM MESECAM S7771 SECAM
CN772
AUTO S7182 OFF(MONO) NICAM
VR771 SOFT SHARP PICTURE
CN796
POWER S7115
EJECT S7114

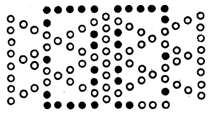
APHIC MODE DISPLAY

A

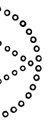

Pattern B

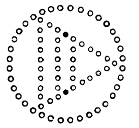

Pattern E

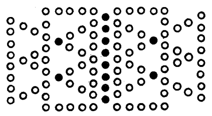

Pattern F

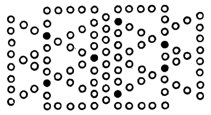

Pattern G

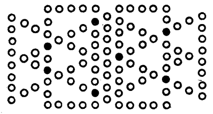
(• : FLD ON)


C

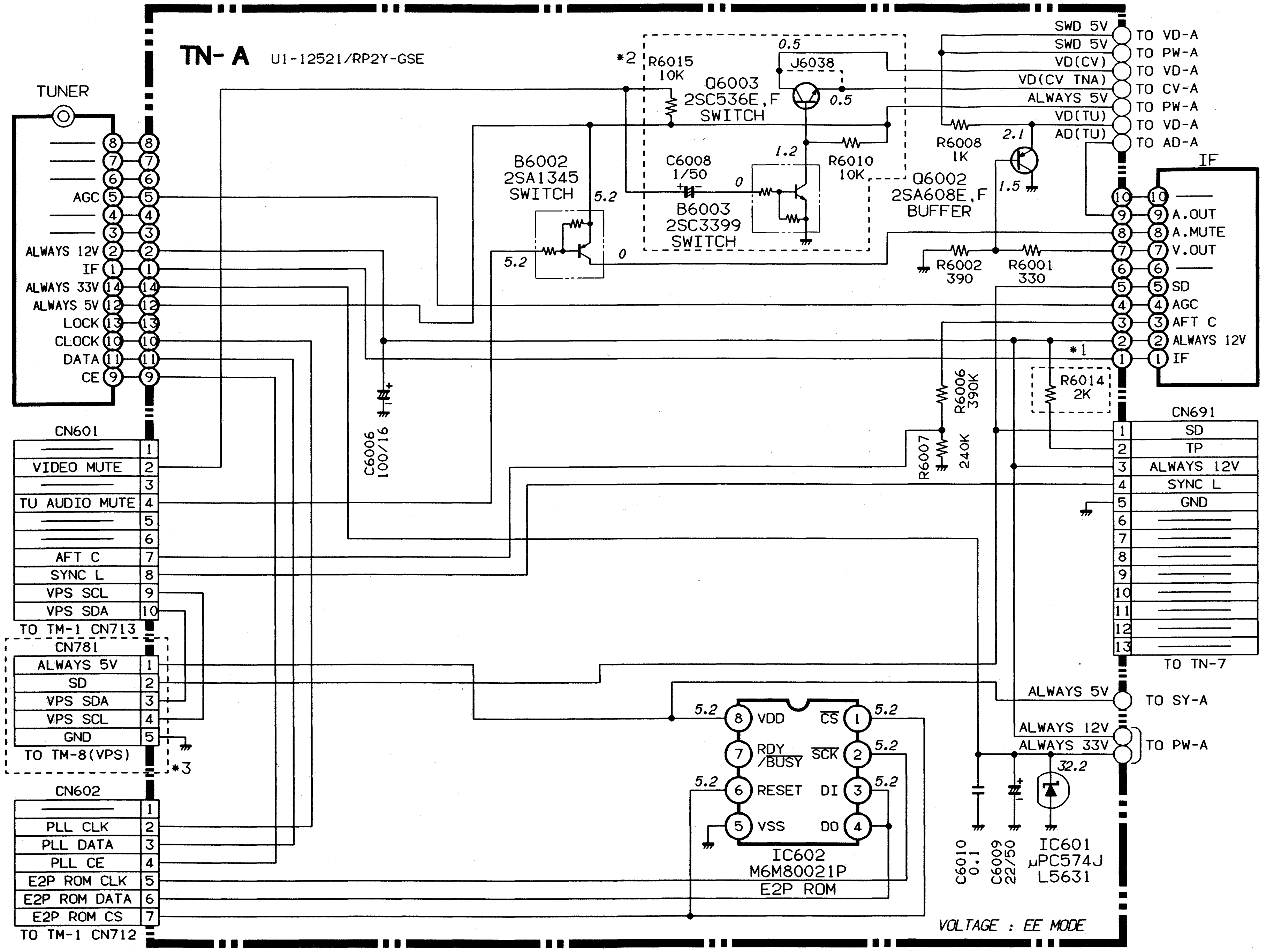

Pattern D


Pattern H


Pattern I


Pattern J

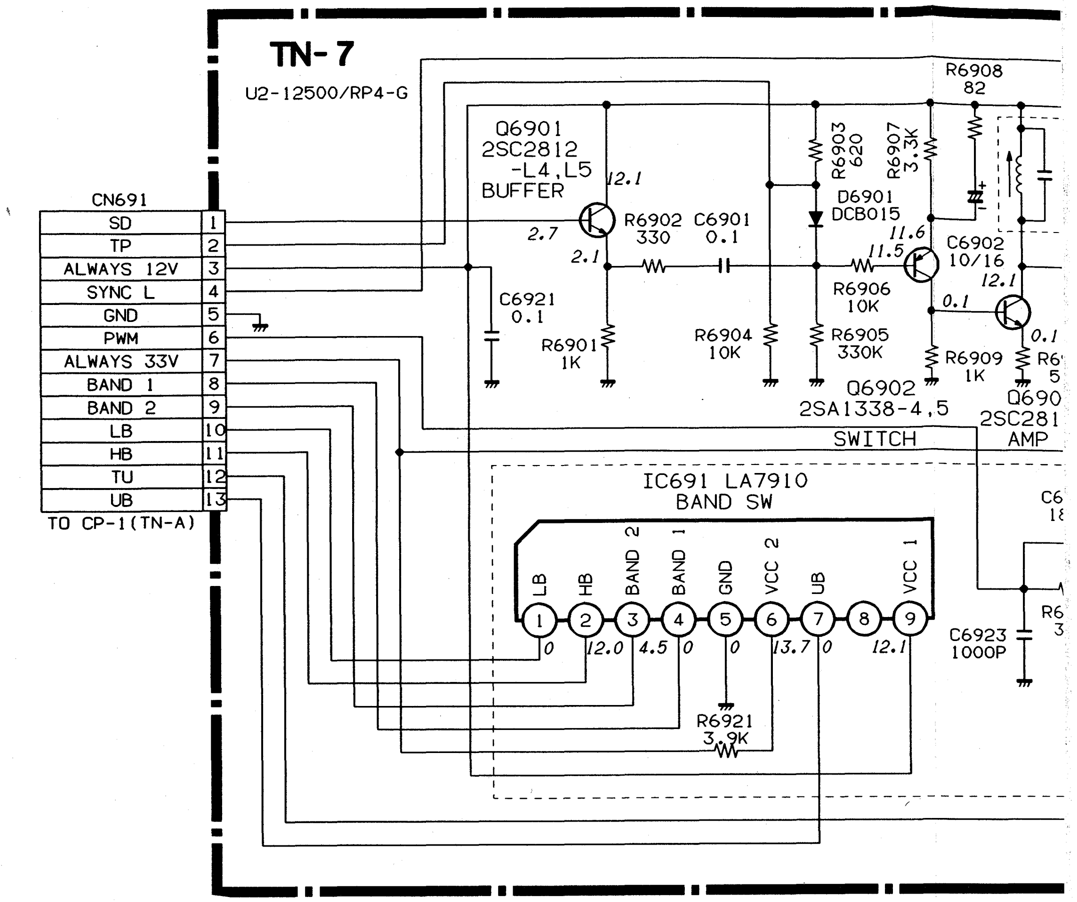
CP-1 BOARD (TN-A) TUNER IF CONNECTION CIRCUIT DIAGRAM (VHR-7500G, VHR-7530G, VHR-7540G, VHR-8500SP)


TN- A
U1-12521/RP2Y-GSE
TUNER
AGC
ALWAYS 12V
IF
ALWAYS 33V
ALWAYS 5V
LOCK
CLOCK
DATA
CE
CN601
VIDEO MUTE
TU AUDIO MUTE
AFT C
SYNC L
VPS SCL
VPS SDA
TO TM-1 CN713
CN781
ALWAYS 5V
SD
VPS SDA
VPS SCL
GND
TO TM-8(VPS)
*3
CN602
PLL CLK
PLL DATA
PLL CE
E2P ROM CLK
E2P ROM DATA
E2P ROM CS
TO TM-1 CN712
*2
R6015
10K
Q6003
2SC536E,F
SWITCH
J6038
B6002
2SA1345
SWITCH
C6008
1/50
B6003
2SC3399
SWITCH
R6010
10K
Q6002
2SA608E,F
BUFFER
R6008
1K
R6002
390
R6001
330
C6006
100/16
R6006
390K
R6007
240K
*1
R6014
2K
SWD 5V
SWD 5V
VD(CV)
VD(CV TNA)
ALWAYS 5V
VD(TU)
AD(TU)
TO VD-A
TO PW-A
TO VD-A
TO CV-A
TO PW-A
TO VD-A
TO AD-A
IF
A.OUT
A.MUTE
V.OUT
SD
AGC
AFT C
ALWAYS 12V
IF
CN691
SD
TP
ALWAYS 12V
SYNC L
GND
TO TN-7
ALWAYS 5V
TO SY-A
ALWAYS 12V
ALWAYS 33V
TO PW-A
VDD
CS
RDY /BUSY
SCK
RESET
DI
VSS
DO
IC602
M6M80021P
E2P ROM
C6010
0.1
C6009
22/50
IC601
μPC574J
L5631
VOLTAGE : EE MODE

NOTE

	*1	*2		*3
	R6014	B6003,Q6003,C6008,R6010,R6015	J6038	CN781
VHR-7500G VHR-7530G	USE	USE	NOT USE	USE
VHR-8500SP	NOT USE	USE	NOT USE	NOT USE
VHR-7540G	USE	NOT USE	USE	USE

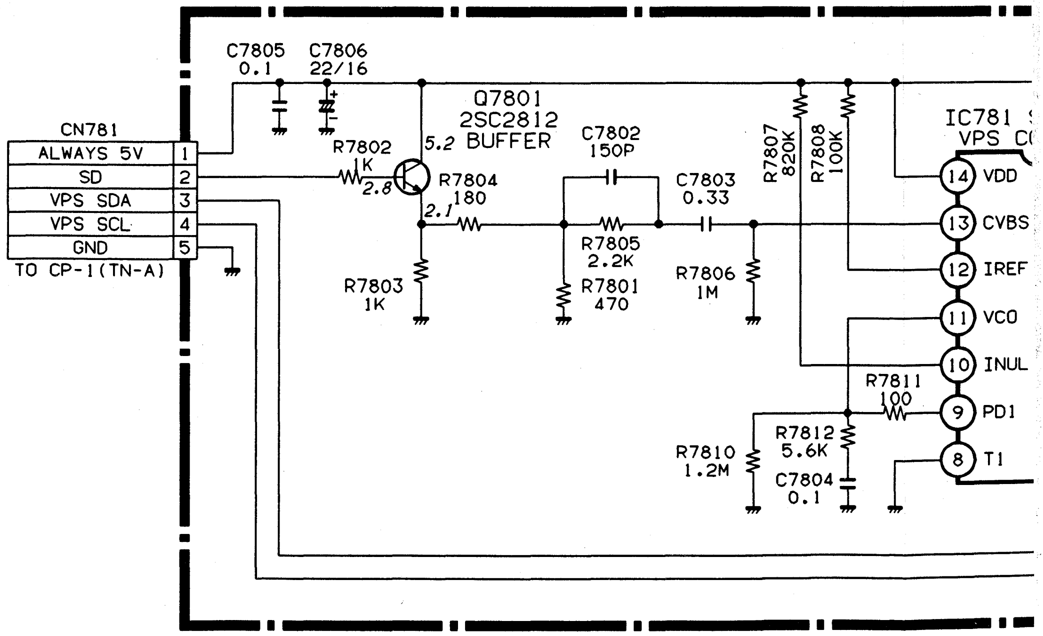
TN-7 BOARD SYNC DET. CIRCUIT


TN- 7
U2-12500/RP4-G
CN691
SD
TP
ALWAYS 12V
SYNC L
GND
PWM
ALWAYS 33V
BAND 1
BAND 2
LB
HB
TU
UB
TO CP-1(TN-A)
Q6901
2SC2812
-L4,L5
BUFFER
R6902 330
C6901 0.1
C6921
0.1
R6901
1K
R6903
620
R6907
3.3K
R6908
82
D6901
DCB015
R6906
10K
R6904
10K
R6905
330K
C6902
10/16
R6909
1K
Q6902
2SA1338-4,5
SWITCH
2SC281
AMP
IC691 LA7910
BAND SW
LB
HB
BAND 2
BAND 1
GND
VCC 2
UB
VCC 1
R6921
3.9K
C6923
1000P

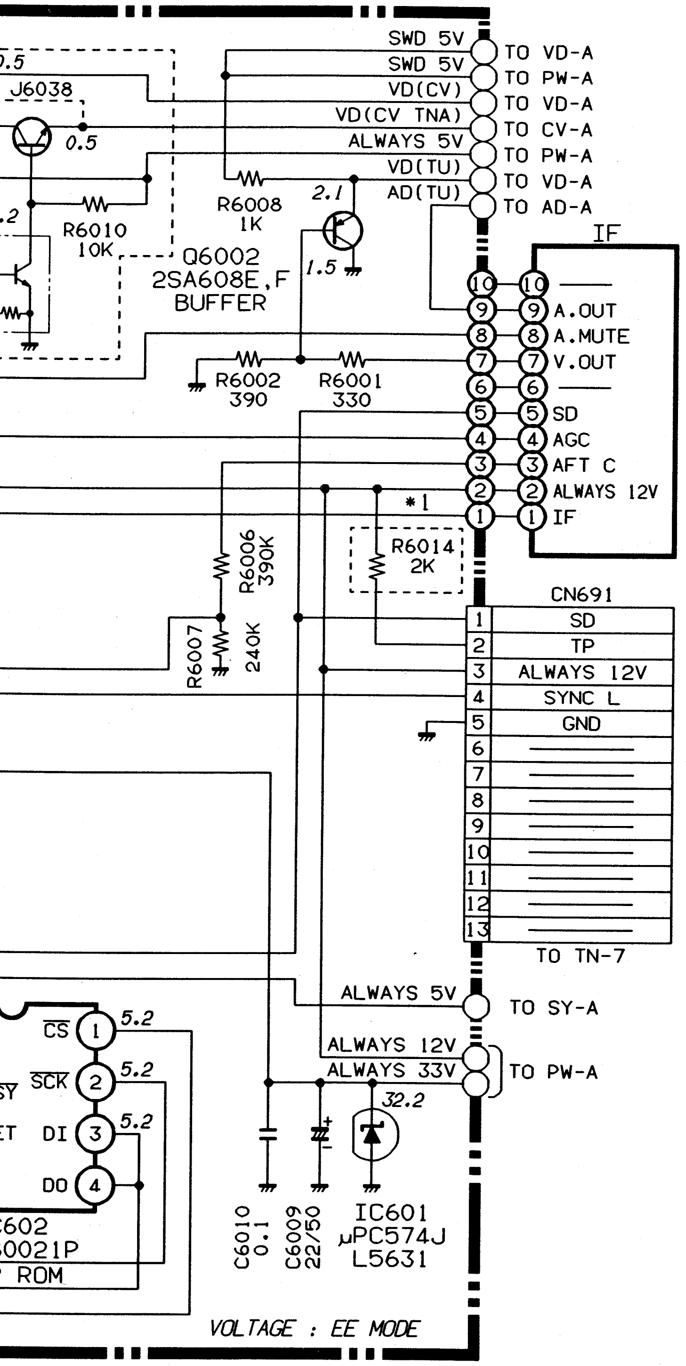
NOTE

	*1
VHR-7500G VHR-7530G VHR-7540G VHR-8500SP	NOT USE
VHR-7500EX	USE

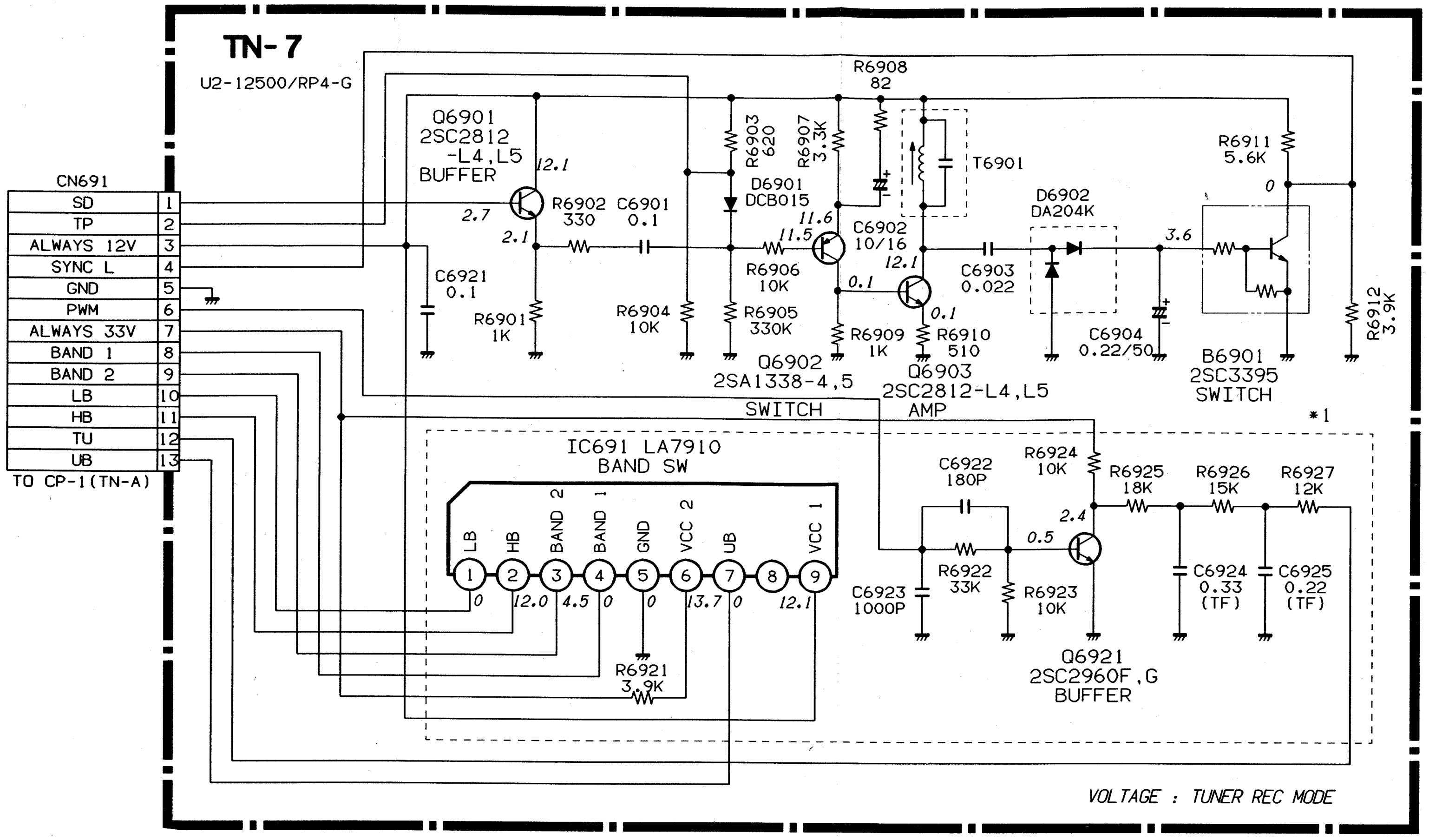
TM-8 BOARD VPS CIRCUIT DIAGRAM (VHR-7500G, VHR-75


C7805
0.1
C7806
22/16
Q7801
2SC2812
BUFFER
CN781
ALWAYS 5V
SD
VPS SDA
VPS SCL
GND
TO CP-1(TN-A)
R7802
1K
R7804
180
R7803
1K
C7802
150P
R7805
2.2K
R7801
470
C7803
0.33
R7806
1M
R7807
820K
R7808
100K
IC781
VPS C
VDD
CVBS
IREF
VCO
INUL
PD1
T1
R7811
100
R7812
5.6K
R7810
1.2M
C7804
0.1

GRAM (VHR-7500G, VHR-7530G,


SWD 5V
SWD 5V
VD(CV)
VD(CV TNA)
ALWAYS 5V
VD(TU)
AD(TU)
TO VD-A
TO PW-A
TO VD-A
TO CV-A
TO PW-A
TO VD-A
TO AD-A
J6038
0.5
R6008
1K
2.1
R6010
10K
Q6002
2SA608E,F
BUFFER
1.5
R6002
390
R6001
330
IF
A.OUT
A.MUTE
V.OUT
SD
AGC
AFT C
ALWAYS 12V
IF
*1
R6014
2K
R6006
390K
R6007
240K
CN691
SD
TP
ALWAYS 12V
SYNC L
GND
TO TN-7
ALWAYS 5V
TO SY-A
ALWAYS 12V
ALWAYS 33V
TO PW-A
32.2
CS
SCK
DI
DO
5.2
5.2
5.2
C6010
0.1
C6009
22/50
IC601
μPC574J
L5631
ROM
VOLTAGE : EE MODE

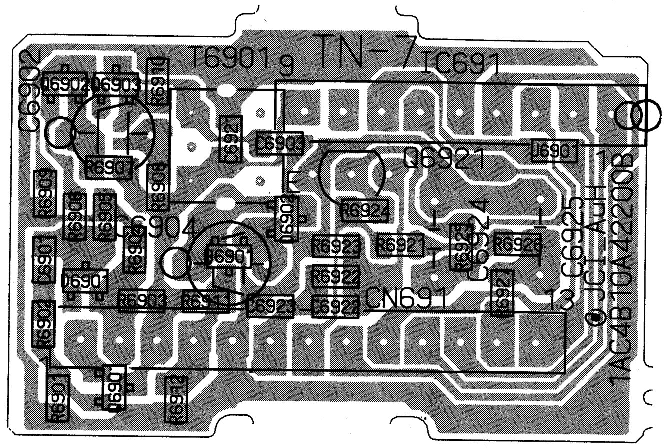
TN-7 BOARD SYNC DET. CIRCUIT DIAGRAM


TN-7
U2-12500/RP4-G
CN691
SD
TP
ALWAYS 12V
SYNC L
GND
PWM
ALWAYS 33V
BAND 1
BAND 2
LB
HB
TU
UB
TO CP-1(TN-A)
Q6901
2SC2812
-L4,L5
BUFFER
12.1
2.7
2.1
R6902
330
C6901
0.1
C6921
0.1
R6901
1K
R6904
10K
R6903
620
R6907
3.3K
R6908
82
D6901
DCB015
11.6
11.5
R6906
10K
R6905
330K
C6902
10/16
12.1
0.1
0.1
Q6902
2SA1338-4,5
SWITCH
R6909
1K
R6910
510
Q6903
2SC2812-L4,L5
AMP
T6901
C6903
0.022
D6902
DA204K
3.6
C6904
0.22/50
R6911
5.6K
0
B6901
2SC3395
SWITCH
R6912
3.9K
*1
IC691 LA7910
BAND SW
LB
HB
BAND 2
BAND 1
GND
VCC 2
UB
VCC 1
0
12.0
4.5
0
0
13.7
0
12.1
R6921
3.9K
C6922
180P
R6924
10K
2.4
0.5
R6922
33K
R6923
10K
C6923
1000P
R6925
18K
R6926
15K
R6927
12K
C6924
0.33
(TF)
C6925
0.22
(TF)
Q6921
2SC2960F,G
BUFFER
VOLTAGE : TUNER REC MODE

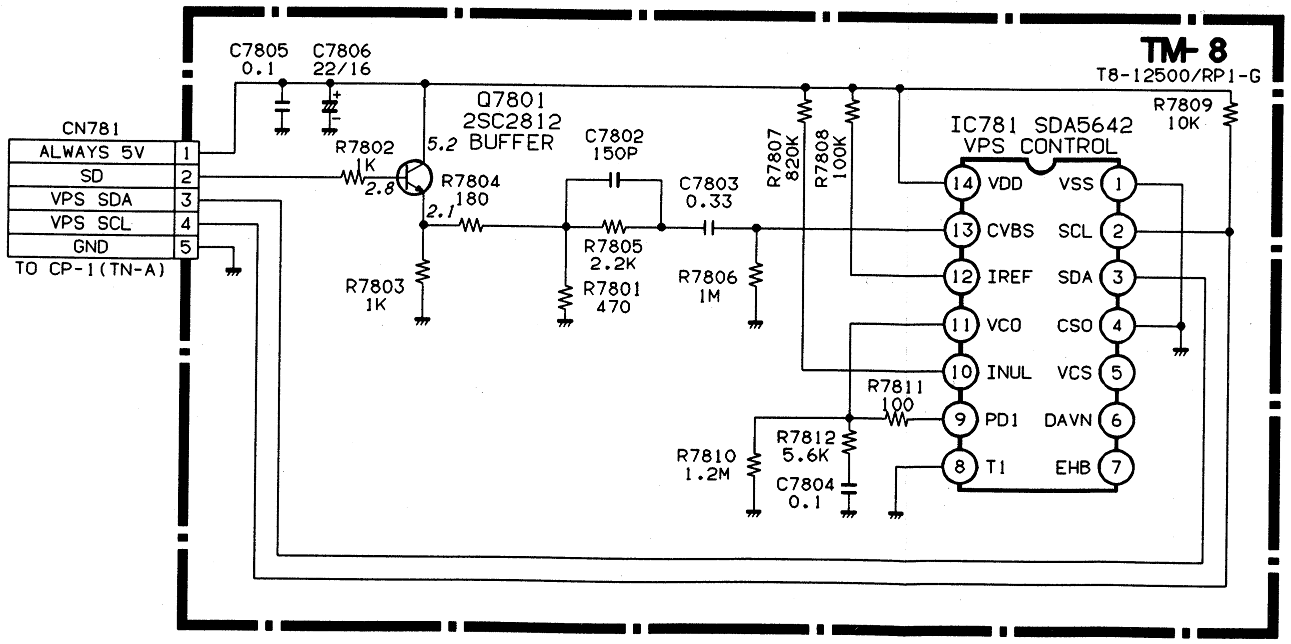
NOTE

	*1
VHR-7500G VHR-7530G VHR-7540G VHR-8500SP	NOT USE
VHR-7500EX	USE

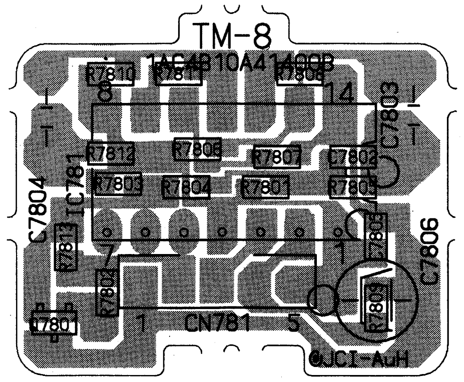
TN-7 P.C.B.


TN-7
T6901
9
IC691
C6902
Q6902
Q6903
Q6921
Q6901
C6904
C6925
C6924
CN691
13
1
JCI-AuH
1AC4B10A42200B

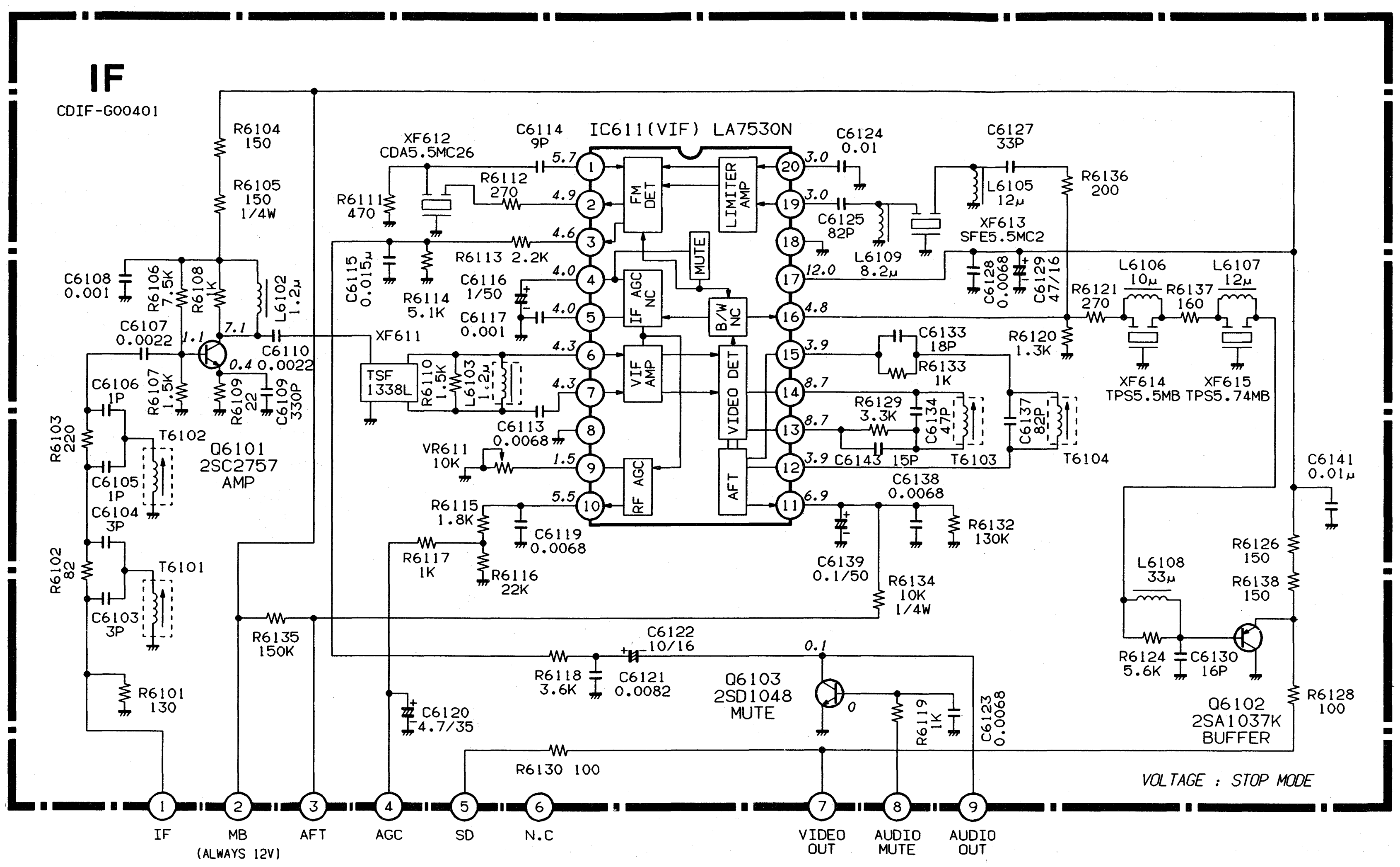
TM-8 BOARD VPS CIRCUIT DIAGRAM (VHR-7500G, VHR-7530G, VHR-7540G)


TM-8
T8-12500/RP1-G
CN781
ALWAYS 5V
SD
VPS SDA
VPS SCL
GND
TO CP-1(TN-A)
C7805
0.1
C7806
22/16
Q7801
2SC2812
BUFFER
5.2
R7802
1K
2.8
R7804
180
2.1
R7803
1K
C7802
150P
R7805
2.2K
R7801
470
C7803
0.33
R7806
1M
R7807
820K
R7808
100K
IC781 SDA5642
VPS CONTROL
VDD
CVBS
IREF
VCO
INUL
PD1
T1
VSS
SCL
SDA
CSO
VCS
DAVN
EHB
R7809
10K
R7811
100
R7812
5.6K
R7810
1.2M
C7804
0.1

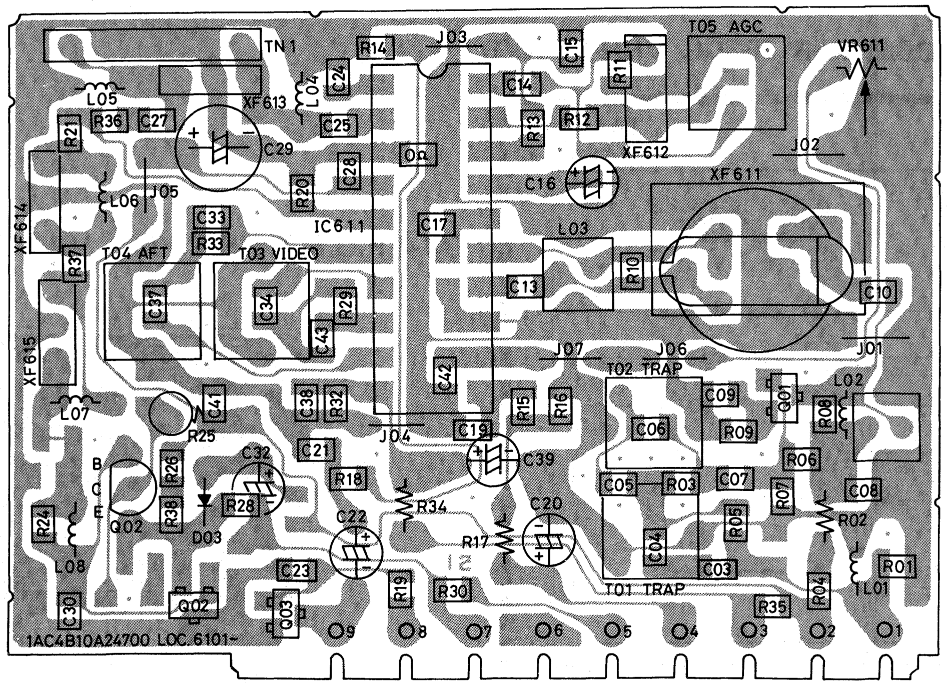
TM-8 P.C.B. (VHR-7500G, VHR-7530G, VHR-7540G)

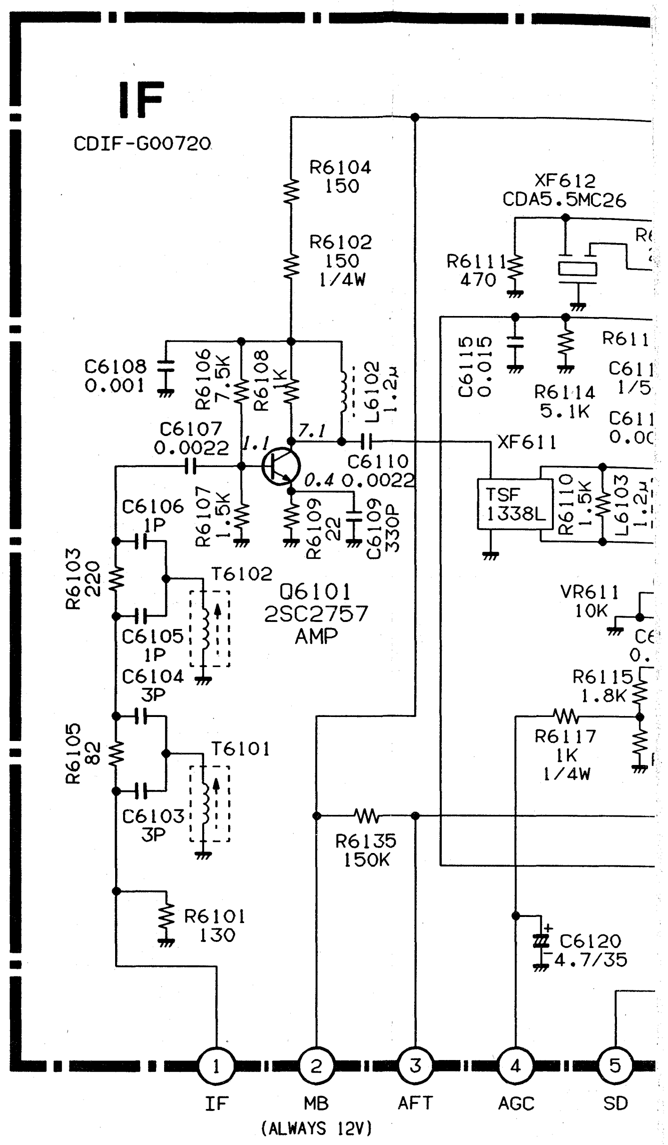

TM-8
1AC4B10A41400B
R7810
R7811
R7808
R7812
R7806
R7807
R7802
R7803
R7804
R7801
R7805
R7809
C7802
C7803
C7804
C7806
IC781
CN781
1
5
14
JCI-AuH

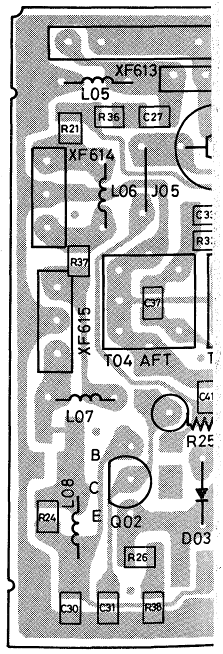
IF CIRCUIT DIAGRAM

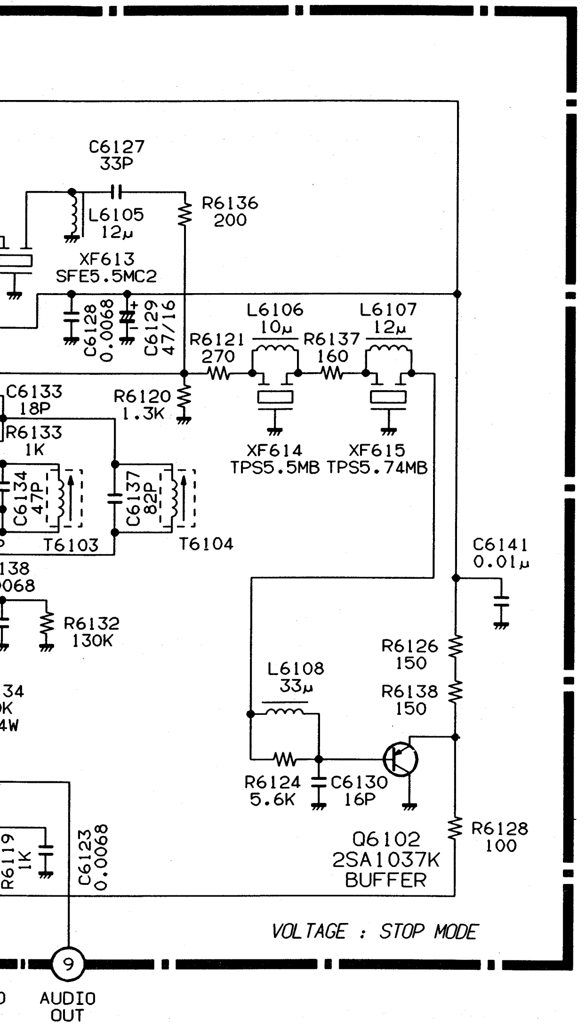

IF
CDIF-G00401
IC611(VIF) LA7530N
XF612 CDA5.5MC26
C6114 9P
C6124 0.01
C6127 33P
R6136 200
L6105 12μ
XF613 SFE5.5MC2
C6125 82P
L6109 8.2μ
C6128 0.0068
C6129 47/16
R6104 150
R6105 150 1/4W
R6111 470
R6112 270
R6113 2.2K
R6114 5.1K
C6115 0.015μ
C6116 1/50
C6117 0.001
C6108 0.001
R6106 7.5K
R6108 1K
L6102 1.2μ
C6107 0.0022
C6110 0.0022
C6109 330P
R6109 22
R6107 1.5K
XF611
TSF 1338L
R6110 1.5K
L6103 1.2μ
C6113 0.0068
VR611 10K
R6115 1.8K
C6119 0.0068
R6117 1K
R6116 22K
R6103 220
C6106 1P
C6105 1P
C6104 3P
T6102
Q6101 2SC2757 AMP
R6102 82
T6101
C6103 3P
R6135 150K
R6101 130
FM DET
LIMITER AMP
MUTE
IF AGC NC
B/W NC
VIF AMP
VIDEO DET
RF AGC
AFT
L6106 10μ
L6107 12μ
R6121 270
R6137 160
XF614 TPS5.5MB
XF615 TPS5.74MB
R6120 1.3K
C6133 18P
R6133 1K
R6129 3.3K
C6134 47P
C6137 82P
T6103
T6104
C6143 15P
C6138 0.0068
R6132 130K
C6139 0.1/50
R6134 10K 1/4W
C6141 0.01μ
L6108 33μ
R6126 150
R6138 150
R6124 5.6K
C6130 16P
Q6102 2SA1037K BUFFER
R6128 100
C6122 10/16
R6118 3.6K
C6121 0.0082
Q6103 2SD1048 MUTE
R6119 1K
C6123 0.0068
C6120 4.7/35
R6130 100
VOLTAGE : STOP MODE
1 IF
2 MB (ALWAYS 12V)
3 AFT
4 AGC
5 SD
6 N.C
7 VIDEO OUT
8 AUDIO MUTE
9 AUDIO OUT

IF P.C.B.

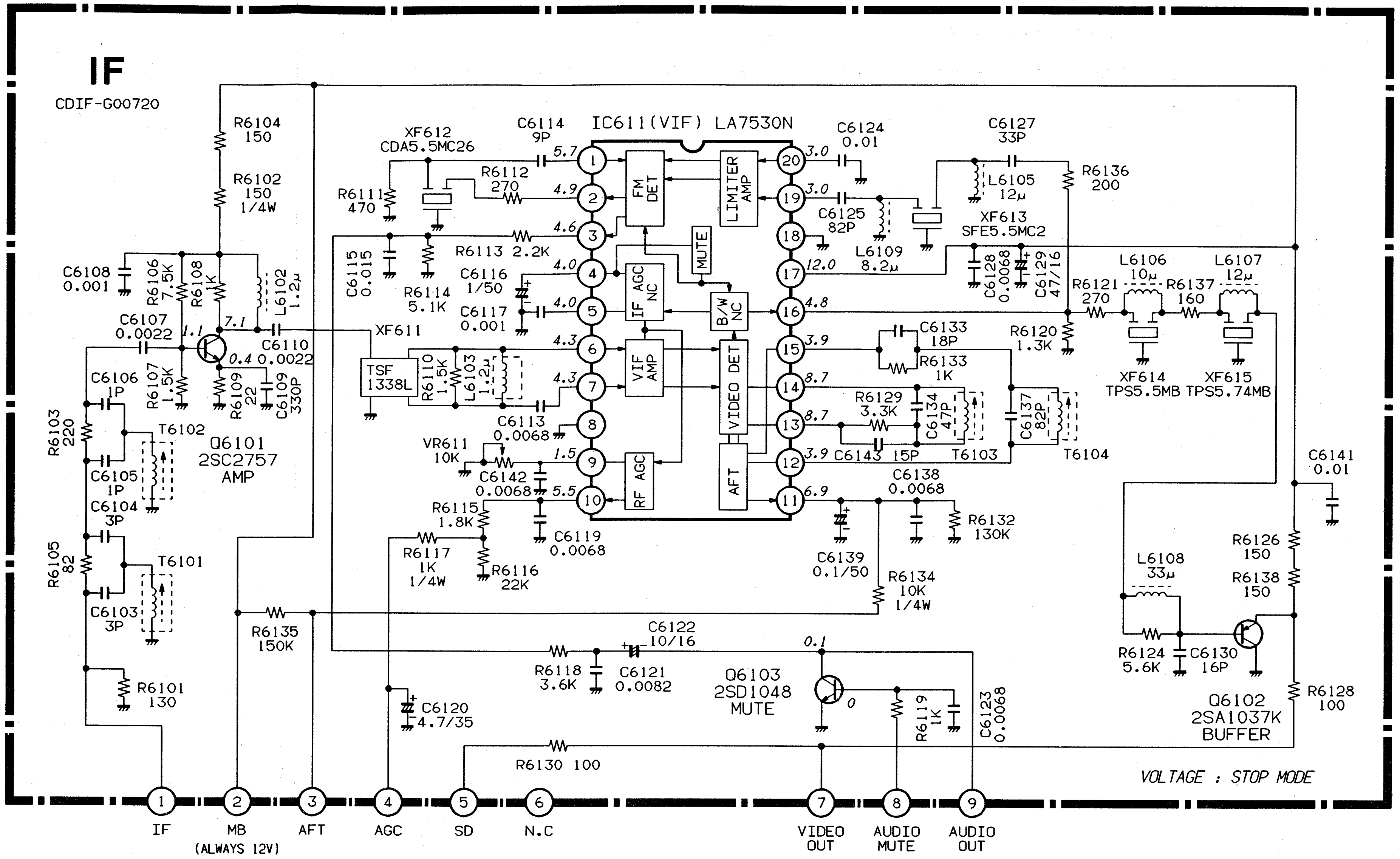

TN1
J03
T05 AGC
VR611
L05
XF613
L04
C24
R14
C15
C14
R11
R36
C27
C25
R13
R12
XF612
R21
C29
C28
J02
XF614
L06
J05
R20
IC611
C16
XF611
C33
R33
C17
L03
T04 AFT
T03 VIDEO
R37
C37
C34
R29
C13
R10
C10
C43
XF615
J07
J06
J01
T02 TRAP
L07
C41
C38
R32
C42
R15
R16
C09
Q01
R08
L02
R25
J04
C19
C06
R09
C32
C21
C39
R06
Q02
R26
R18
C05
R03
C07
R24
R38
R28
D03
C22
R34
R17
C20
R05
R07
C08
R02
L08
C23
C04
C03
R01
C30
Q02
Q03
R19
R30
T01 TRAP
R35
R04
L01
1AC4B10A24700 LOC.6101~
9
8
7
6
5
4
3
2
1

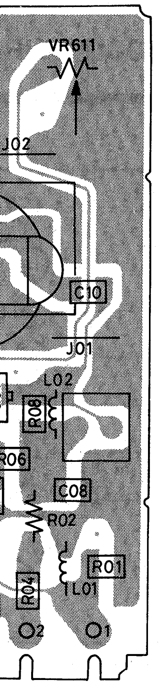

IF
CDIF-G00720
R6104 150
R6102 150 1/4W
XF612 CDA5.5MC26
R6111 470
C6115 0.015
R6114 5.1K
C6108 0.001
R6106 7.5K
R6108 1K
L6102 1.2μ
C6107 0.0022
C6110 0.0022
C6109 330P
R6109 22
R6107 1.5K
XF611
TSF 1338L
R6110 1.5K
L6103 1.2μ
R6103 220
C6106 1P
T6102
Q6101 2SC2757 AMP
C6105 1P
C6104 3P
VR611 10K
R6115 1.8K
R6117 1K 1/4W
R6105 82
T6101
C6103 3P
R6135 150K
R6101 130
C6120 4.7/35
1 IF
2 MB (ALWAYS 12V)
3 AFT
4 AGC
5 SD

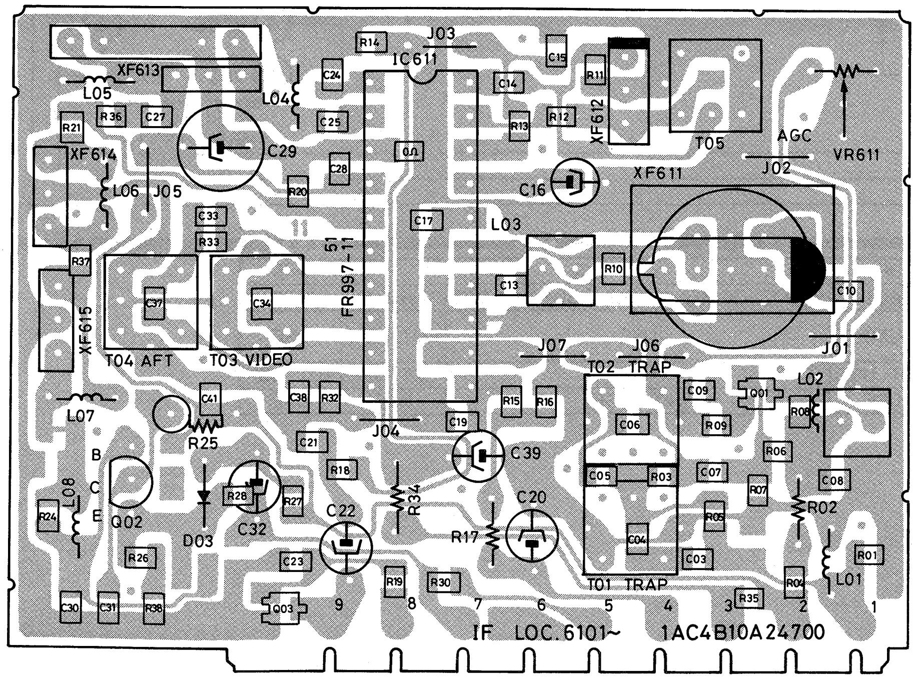

XF613
L05
R36
C27
R21
XF614
L06
J05
R37
XF615
T04 AFT
L07
R25
L08
R24
Q02
D03
R26
C30
C31
R38


C6127
33P
L6105
12μ
R6136
200
XF613
SFE5.5MC2
C6128
0.0068
C6129
47/16
L6106
10μ
R6121
270
R6137
160
L6107
12μ
C6133
18P
R6120
1.3K
R6133
1K
XF614
TPS5.5MB
XF615
TPS5.74MB
C6134
47P
C6137
82P
T6103
T6104
C6141
0.01μ
R6132
130K
L6108
33μ
R6126
150
R6138
150
R6124
5.6K
C6130
16P
Q6102
2SA1037K
BUFFER
R6128
100
R6119
1K
C6123
0.0068
VOLTAGE : STOP MODE
9
AUDIO
OUT

RF CONVERTER CIRCUIT DIAGRAM

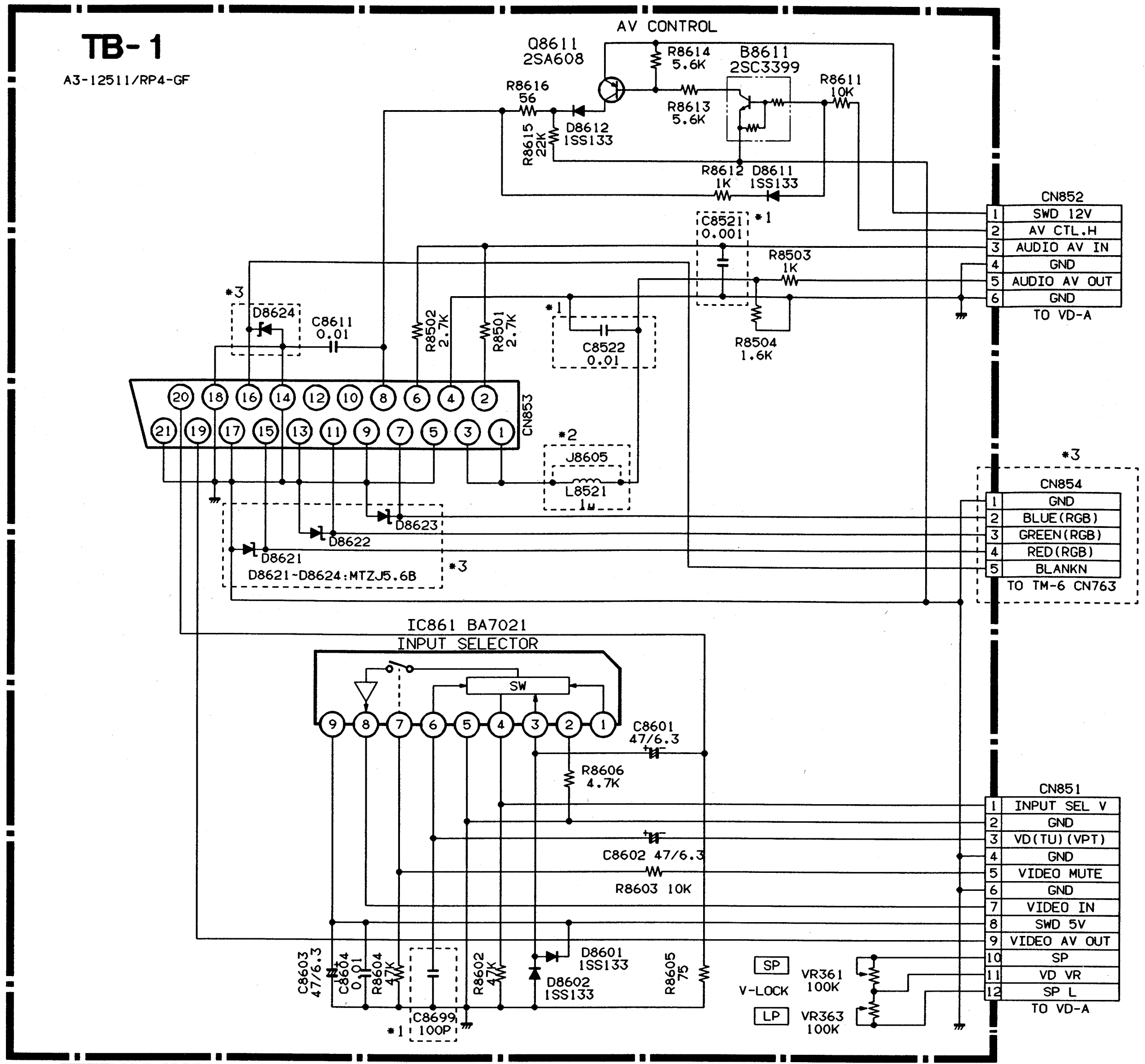

IF
CDIF-G00720
IC611(VIF) LA7530N
R6104
150
R6102
150
1/4W
XF612
CDA5.5MC26
C6114
9P
R6112
270
R6111
470
R6113 2.2K
C6115
0.015
R6114
5.1K
C6116
1/50
C6117
0.001
XF611
TSF
1338L
R6110
1.5K
L6103
1.2μ
C6113
0.0068
VR611
10K
C6142
0.0068
R6115
1.8K
R6117
1K
1/4W
R6116
22K
C6119
0.0068
FM DET
LIMITER AMP
MUTE
IF AGC NC
B/W NC
VIF AMP
VIDEO DET
RF AGC
AFT
5.7
4.9
4.6
4.0
4.0
4.3
4.3
1.5
5.5
3.0
3.0
12.0
4.8
3.9
8.7
8.7
3.9
6.9
C6124
0.01
C6125
82P
L6109
8.2μ
C6133
18P
R6133
1K
R6129
3.3K
C6134
47P
C6143 15P
T6103
C6138
0.0068
C6137
82P
T6104
C6139
0.1/50
R6132
130K
R6134
10K
1/4W
C6127
33P
L6105
12μ
R6136
200
XF613
SFE5.5MC2
C6128
0.0068
C6129
47/16
L6106
10μ
L6107
12μ
R6121
270
R6137
160
R6120
1.3K
XF614
TPS5.5MB
XF615
TPS5.74MB
C6141
0.01
L6108
33μ
R6126
150
R6138
150
R6124
5.6K
C6130
16P
Q6102
2SA1037K
BUFFER
R6128
100
C6108
0.001
R6106
7.5K
R6108
1K
L6102
1.2μ
C6107
0.0022
1.1
7.1
0.4
C6110
0.0022
R6107
1.5K
R6109
22
C6109
330P
C6106
1P
R6103
220
T6102
Q6101
2SC2757
AMP
C6105
1P
C6104
3P
R6105
82
T6101
C6103
3P
R6101
130
R6135
150K
C6122
10/16
R6118
3.6K
C6121
0.0082
Q6103
2SD1048
MUTE
0.1
0
R6119
1K
C6123
0.0068
C6120
4.7/35
R6130 100
VOLTAGE : STOP MODE
1
IF
2
MB
(ALWAYS 12V)
3
AFT
4
AGC
5
SD
6
N.C
7
VIDEO
OUT
8
AUDIO
MUTE
9
AUDIO
OUT


VR611
J02
C10
J01
L02
R08
R06
C08
R02
R01
R04
L01
2
1


XF613
L05
R36
C27
C29
J03
IC611
R14
C24
L04
C25
C14
C15
R11
R12
R13
XF612
T05
AGC
VR611
XF614
L06
J05
R21
C28
R20
C16
XF611
J02
C33
R33
C17
L03
R37
FR997-11
C37
C34
R10
C13
C10
XF615
T04 AFT
T03 VIDEO
J07
J06
T02 TRAP
J01
L07
C41
C38
R32
C19
J04
R15
R16
C09
Q01
L02
R08
R25
C21
C39
C06
R09
R06
B
C
E
L08
R24
Q02
D03
R28
R27
C32
C22
R18
R34
R17
C20
C05
R03
C07
R07
R05
C08
R02
C04
R01
R26
C23
R19
R30
C03
R04
T01 TRAP
C30
C31
R38
Q03
9
8
7
6
5
4
3
2
1
R35
IF LOC.6101~
1AC4B10A24700

8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24

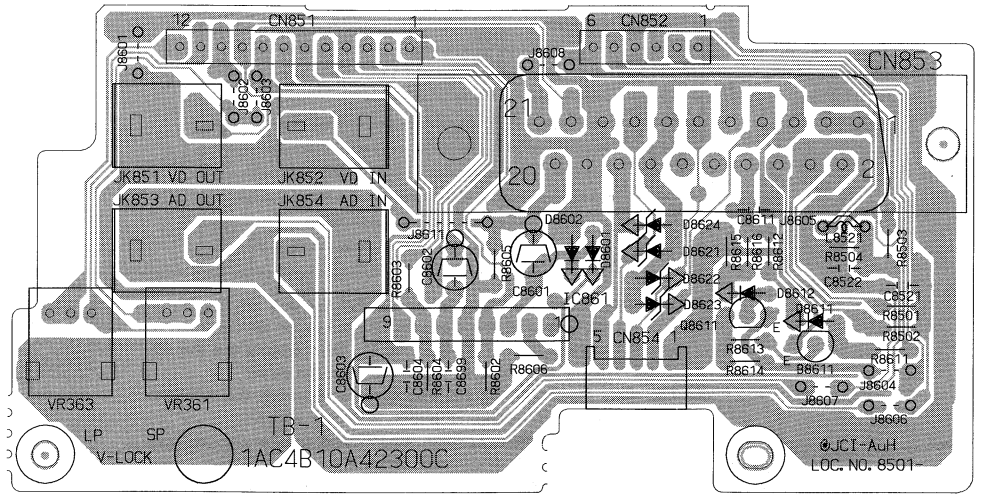
TB-1 BOARD TERMINAL CIRCUIT DIAGRAM


TB-1
A3-12511/RP4-GF
AV CONTROL
Q8611 2SA608
R8614 5.6K
B8611 2SC3399
R8616 56
R8613 5.6K
R8611 10K
R8615 22K
D8612 1SS133
R8612 1K
D8611 1SS133
C8521 0.001 *1
R8503 1K
R8504 1.6K
*3
D8624
C8611 0.01
R8502 2.7K
R8501 2.7K
*1
C8522 0.01
CN853
*2
J8605
L8521 1μ
D8623
D8622
D8621
D8621-D8624:MTZJ5.6B
*3
CN852
1 SWD 12V
2 AV CTL.H
3 AUDIO AV IN
4 GND
5 AUDIO AV OUT
6 GND
TO VD-A
*3
CN854
1 GND
2 BLUE(RGB)
3 GREEN(RGB)
4 RED(RGB)
5 BLANKN
TO TM-6 CN763
IC861 BA7021
INPUT SELECTOR
SW
C8601 47/6.3
R8606 4.7K
C8602 47/6.3
R8603 10K
CN851
1 INPUT SEL V
2 GND
3 VD(TU)(VPT)
4 GND
5 VIDEO MUTE
6 GND
7 VIDEO IN
8 SWD 5V
9 VIDEO AV OUT
10 SP
11 VD VR
12 SP L
TO VD-A
C8603 47/6.3
C8604 0.01
R8604 47K
C8699 100P *1
R8602 47K
D8601 1SS133
D8602 1SS133
R8605 75
SP
V-LOCK
LP
VR361 100K
VR363 100K

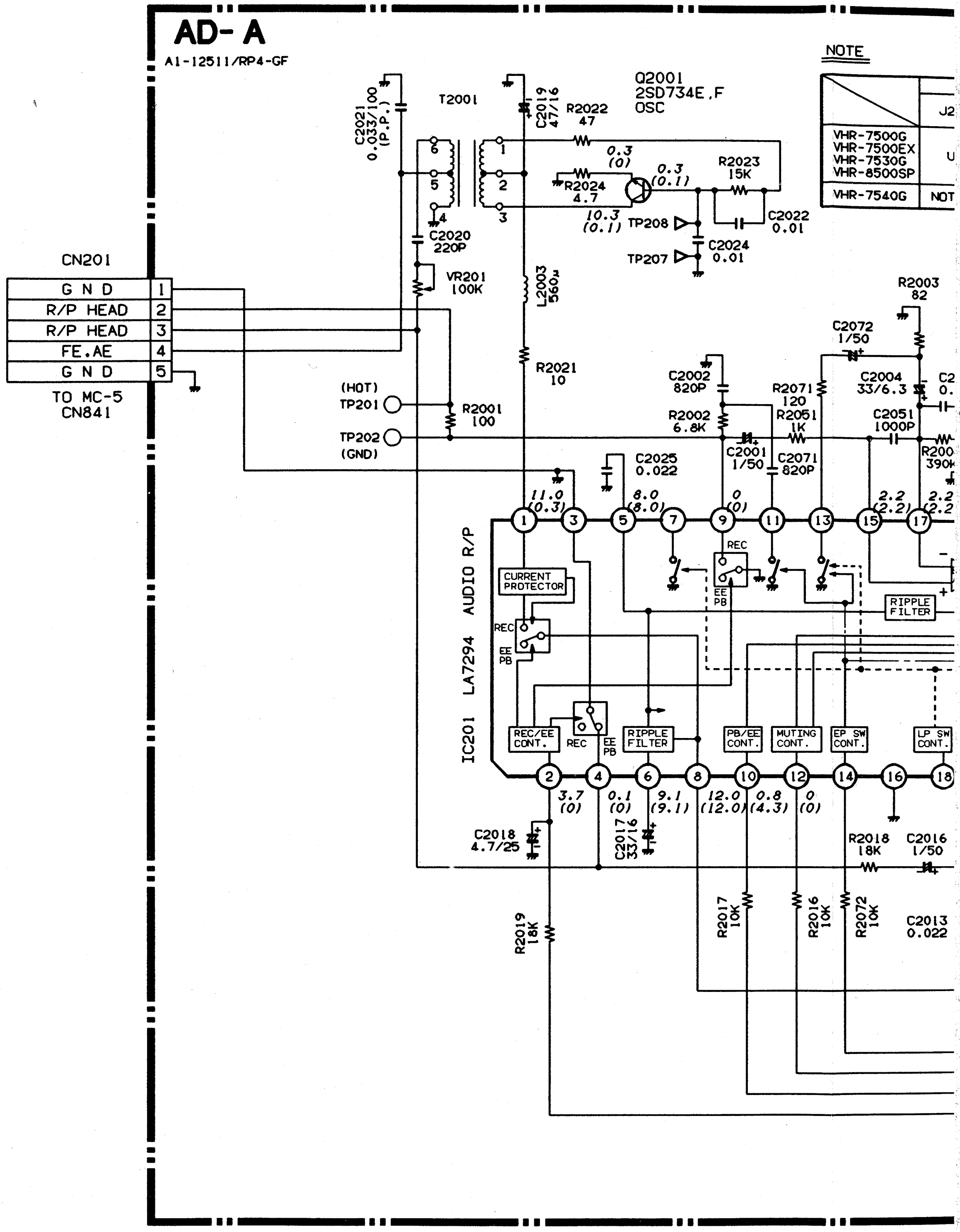
NOTE

	*1	*2	*3
	C8521,C8522,C8699	L8521 or J8605	CN854,D8621-D8624
VHR-7500EX VHR-8500SP	NOT USE	J8605	NOT USE
VHR-7500G VHR-7530G	USE	L8521	NOT USE
VHR-7540G	USE	L8521	USE

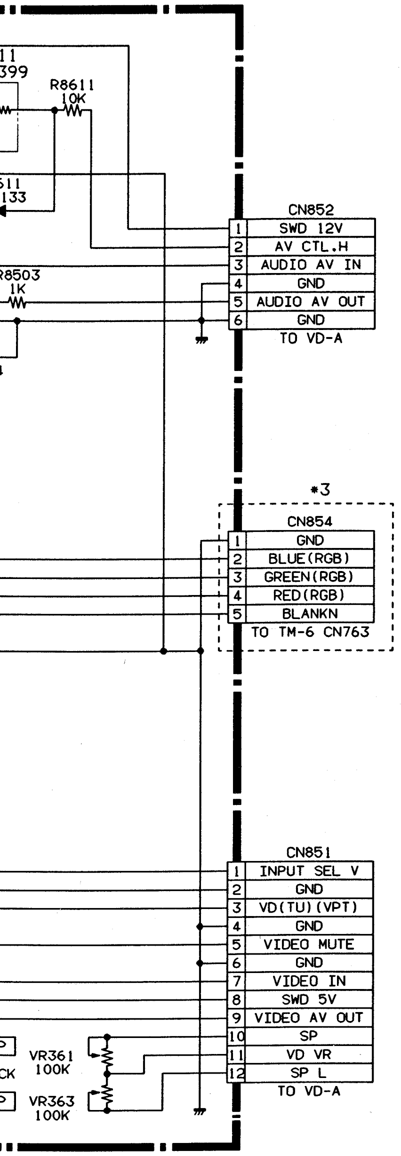
TB-1 P.C.B.

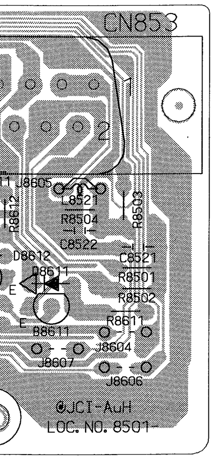

CN851
CN852
CN853
JK851 VD OUT
JK852 VD IN
JK853 AD OUT
JK854 AD IN
IC861
CN854
VR363
VR361
LP
SP
V-LOCK
TB-1
1AC4B10A42300C
©JCI-AuH
LOC. NO. 8501-

CP-1 BOARD (AD-A) AU

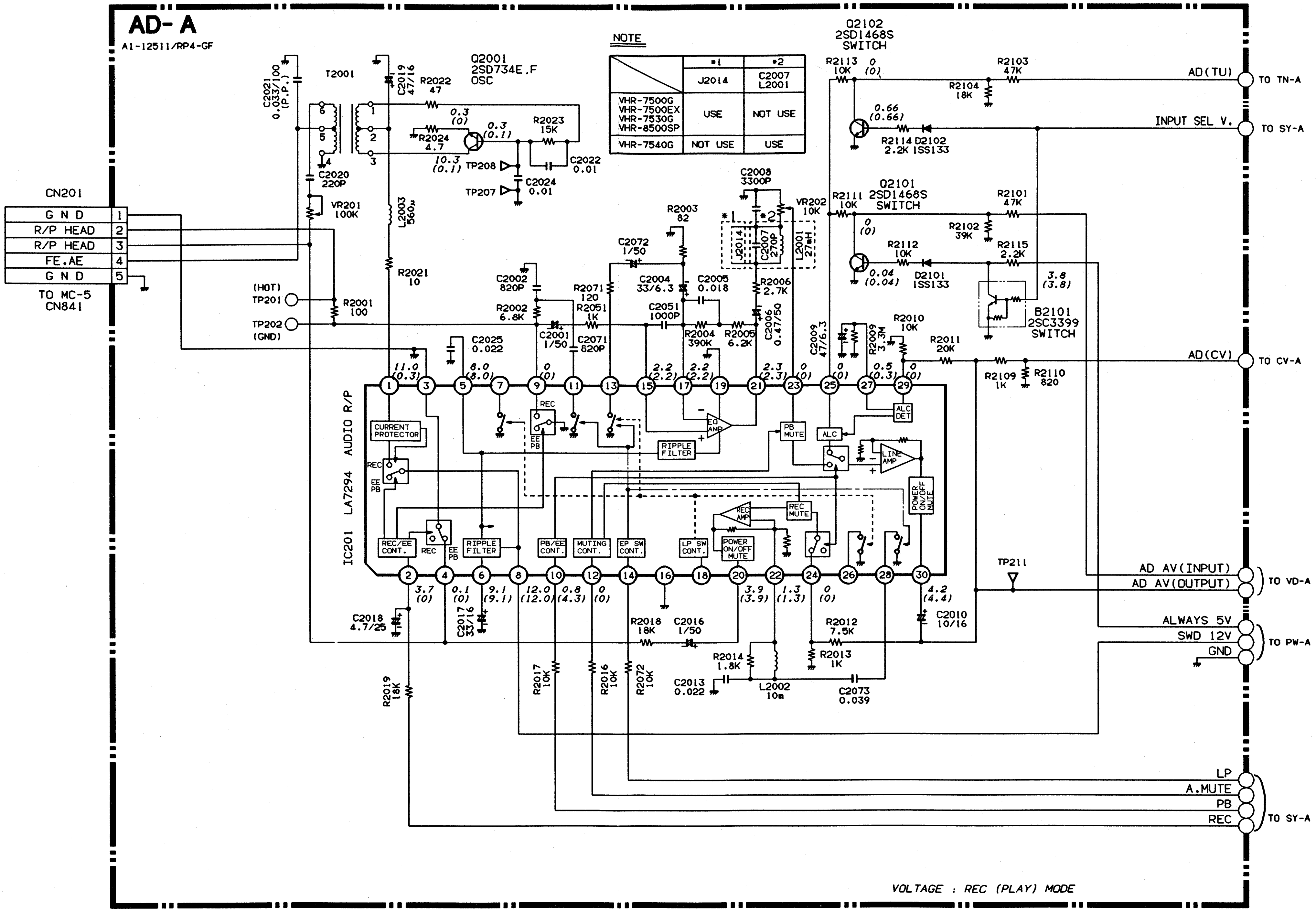

AD-A
A1-12511/RP4-GF
NOTE
VHR-7500G
VHR-7500EX
VHR-7530G
VHR-8500SP
VHR-7540G
CN201
1 GND
2 R/P HEAD
3 R/P HEAD
4 FE.AE
5 GND
TO MC-5 CN841
C2021 0.033/100 (P.P.)
T2001
C2019 47/16
R2022 47
Q2001 2SD734E.F OSC
R2024 4.7
R2023 15K
C2022 0.01
TP208
TP207
C2024 0.01
C2020 220P
VR201 100K
L2003 560μ
R2021 10
(HOT) TP201
R2001 100
TP202 (GND)
C2025 0.022
C2002 820P
R2002 6.8K
C2001 1/50
R2071 120
R2051 1K
C2071 820P
C2072 1/50
C2004 33/6.3
C2051 1000P
R2003 82
IC201 LA7294 AUDIO R/P
CURRENT PROTECTOR
REC
EE PB
REC/EE CONT.
RIPPLE FILTER
PB/EE CONT.
MUTING CONT.
EP SW CONT.
LP SW CONT.
C2018 4.7/25
C2017 33/16
R2018 18K
C2016 1/50
R2019 18K
R2017 10K
R2016 10K
R2072 10K
C2013 0.022

AM


R8611
10K
R8503
1K
CN852
1 SWD 12V
2 AV CTL.H
3 AUDIO AV IN
4 GND
5 AUDIO AV OUT
6 GND
TO VD-A
*3
CN854
1 GND
2 BLUE(RGB)
3 GREEN(RGB)
4 RED(RGB)
5 BLANKN
TO TM-6 CN763
CN851
1 INPUT SEL V
2 GND
3 VD(TU)(VPT)
4 GND
5 VIDEO MUTE
6 GND
7 VIDEO IN
8 SWD 5V
9 VIDEO AV OUT
10 SP
11 VD VR
12 SP L
TO VD-A
VR361
100K
VR363
100K


CN853
J8605
C8521
R8504
C8522
R8503
C8521
R8501
R8502
R8611
D8611
J8604
J8607
J8606
©JCI-AuH
LOC. NO. 8501

CP-1 BOARD (AD-A) AUDIO CIRCUIT DIAGRAM


AD- A
A1-12511/RP4-GF
CN201
1 G N D
2 R/P HEAD
3 R/P HEAD
4 FE.AE
5 G N D
TO MC-5
CN841
(HOT)
TP201
TP202
(GND)
R2001
100
C2021
0.033/100
(P.P.)
T2001
C2020
220P
VR201
100K
C2019
47/16
R2022
47
Q2001
2SD734E,F
OSC
R2024
4.7
R2023
15K
TP208
TP207
C2022
0.01
C2024
0.01
L2003
560μ
R2021
10
C2025
0.022
C2002
820P
R2002
6.8K
C2001
1/50
C2071
820P
R2071
120
R2051
1K
C2072
1/50
C2004
33/6.3
C2005
0.018
C2051
1000P
R2004
390K
R2005
6.2K
R2003
82
C2008
3300P
*1
*2
J2014
C2007
270P
L2001
27mH
VR202
10K
R2006
2.7K
C2006
0.47/50
C2009
47/6.3
R2009
3.3M
R2010
10K
R2011
20K
R2109
1K
R2110
820
Q2102
2SD1468S
SWITCH
R2113
10K
R2103
47K
R2104
18K
R2114
2.2K
D2102
1SS133
Q2101
2SD1468S
SWITCH
R2111
10K
R2101
47K
R2102
39K
R2112
10K
R2115
2.2K
D2101
1SS133
B2101
2SC3399
SWITCH
AD(TU)
TO TN-A
INPUT SEL V.
TO SY-A
AD(CV)
TO CV-A
IC201 LA7294 AUDIO R/P
CURRENT PROTECTOR
REC
EE PB
RIPPLE FILTER
EQ AMP
PB MUTE
ALC
ALC DET
LINE AMP
POWER ON/OFF MUTE
REC/EE CONT.
PB/EE CONT.
MUTING CONT.
EP SW CONT.
LP SW CONT.
REC AMP
REC MUTE
POWER ON/OFF MUTE
1 3 5 7 9 11 13 15 17 19 21 23 25 27 29
2 4 6 8 10 12 14 16 18 20 22 24 26 28 30
11.0 (0.3)
8.0 (8.0)
0 (0)
2.2 (2.2)
2.2 (2.2)
2.3 (2.3)
0 (0)
0 (0)
0.5 (0.3)
0 (0)
3.7 (0)
0.1 (0)
9.1 (9.1)
12.0 (12.0)
0.8 (4.3)
0 (0)
3.9 (3.9)
1.3 (1.3)
0 (0)
4.2 (4.4)
0.66 (0.66)
0 (0)
0.04 (0.04)
3.8 (3.8)
0.3 (0)
0.3 (0.1)
10.3 (0.1)
C2018
4.7/25
C2017
33/16
R2019
18K
R2017
10K
R2016
10K
R2072
10K
R2018
18K
C2016
1/50
R2014
1.8K
C2013
0.022
L2002
10m
R2012
7.5K
R2013
1K
C2073
0.039
C2010
10/16
TP211
AD AV(INPUT)
AD AV(OUTPUT)
TO VD-A
ALWAYS 5V
SWD 12V
GND
TO PW-A
LP
A.MUTE
PB
REC
TO SY-A
VOLTAGE : REC (PLAY) MODE

NOTE

	*1	*2
	J2014	C2007 L2001
VHR-7500G VHR-7500EX VHR-7530G VHR-8500SP	USE	NOT USE
VHR-7540G	NOT USE	USE

IC301 (μPD75516) SYSTEM CONTROL MPU PIN FUNCTIONS TABLE

NO.	Name	I/O	I/O Signal Function
1	TAPE END.S	I	Sensor signal input for tape end detection.
2	A/D REF	I	Reference voltage input for internal A/D conversion circuit. (5 Vdc)
3	VDD		IC power supply input. (5 Vdc)
4	VDD		IC power supply input. (5 Vdc)
5	NOISE ADVANCE P.	O	Pulse for noise band advance in STILL mode.
6	INSERT HIGH	O	"HIGH" output in video signal insert mode. (Models equipped with FE heads.)
7	AF REC	O	"HIGH" output in video signal insert mode, signal to activate FE head.
8	A.DUB	O	"HIGH" output in audio dubbing mode.
9	AUDIO SEL.R	O	Output select signal for stereo audio signals. (ST/L/R/NORMAL).
10	AUDIO SEL.L		
11	INPUT SEL.V	O	Signal for selecting video input signal. (TUNER/EXTERNAL/S.C.)
12	INPUT SEL.A	O	Signal for selecting audio input signal. (TUNER/EXTERNAL/S.C.)
13	S-VHS AUTO/OFF	I	S-VHS auto mode selection terminal.
14	BIAS CONTROL	O	Signal for switching full-width erasing head OFF when "HIGH" and ON when "LOW".
15	A REC MUTE	O	Signal to disable output or recording of NORMAL audio.
16	A MUTE	O	Signal to disable audio signal output.
17	NORMAL/S-VHS	I	NORMAL (VHS) /S-VHS selection terminal. Normal VHS when "HIGH".
18	SV S.DATA	O	Outputs 8-bit × 4 serial data giving operation mode and tracking data, etc., to digital servo IC. CLK is its clock pulse.
19	SV S.CLK		
20	4K-PWM	O	Outputs 4 kHz PWM signal for set period at start of high-speed FF/REW.
21	REV HIGH	O	Signal giving skew correction in LP SEARCH mode. (PAL models only)
22	–	–	
23	VD REC	O	Signal indicating recording of video signal in insert mode. (Models equipped with FE head only)
24	FE CONTROL	O	Signal indicating operation of FE head in insert mode. (Models equipped with FE head only)
25	TITL REC	O	Title insert mode indication signal.
26	SPECIAL PLAY	O	Output in special playback modes (R/L-SEARCH, × 2S, STILL, SLOW, F-ADVANCE, A-DUB PAUSE).
27	REC	O	Recording indication signal.
28	STILL + SLOW	O	"LOW" output in STILL/SLOW mode for control on-screen IC.
29	ANT/VIDEO	O	Antenna through or video deck RF output select (Video when LOW).
30	P.B. HIGH	O	Signal indicating playback image output.
31	FF + REW	O	"HIGH" output during FF or REW mode.
32	POWER UP	O	"HIGH" output except when power is off. Indicates that power is ON.
33	GND		IC ground terminal.
34	SAFETY SW	I	Input terminal for accidental erasure prevention switch. No operating to recording mode while "LOW" is input.
35	SW DATA 3	I	3-bit signal indicating operation position of mechanism.
36	SW DATA 2		
37	SW DATA 1		
38	–	–	Pull-up (5 Vdc)
39	FL START SW	I	Switch input indicating start of cassette loading or discharge by front mechanism.
40	60 PWM	O	PWM signal output at high speed FF/REW mode.
41	H.SPEED • SEARCH + FF + REW	O	"HIGH" output during SEARCH, FF and REW at high speed mode.
42	AV CONTROL (8PIN)	O	AV terminal (21PIN SOCKET) control signal output.
43	ATR SMPL P	O	Sampling pulse output during auto-tracking operation. (For ATR evaluation)
44	MC-BR	O	Brake signal for capstan motor.
45	MC-F/R	O	Indication signal for capstan motor rotation direction.
46	INSERT ON/OFF	I	INSERT function ON/OFF terminal. Function enabled when "LOW".
47	C-FG P.	I	FG pulse input for capstan motor. Signal with frequency of approximately 1 kHz is recognized.
48	T.REEL P.	I	Pulse input for detection of take-up reel table rotation.
49	CTL P.(0/1 CLK)	I	CTL head recording/playback pulse signal input.
50	S.REEL P.	I	Pulse input for detection of supply reel table rotation.
51	SSB DATA	I/O	Terminals for communication of mode data with other microprocessors. Data is 8-bit × 12 block serial data. The clock pulse is output from this microcomputer.
52	SSB CLK	O	
53	RF SW P.	I	Input of RF switching pulse created by head drum PG.
54	GND	–	IC ground terminal.
55	GND	–	Not used (grounded)
56	–	–	Not used
57	GND	–	IC ground terminal.
58	X1	–	IC clock OSC terminal. Clock frequency is 4 MHz.
59	X2	–	
60	RESET	I	Initial reset terminal for IC. Reset when "LOW".
61	0/1 DATA	I	CTL head recording/playback pulse signal input. Used for VISS data detection.
62	ATR ON/OFF	I	Auto tracking operation ON/OFF indication signal input. ATR ON when LOW.
63	ENV SW (DOC P.)	I	Video head envelope selection signal input. Used for absorbing (DOC PULSE) STILL noise.
64	–	–	
65	LP HIGH	O	"HIGH" output when tape speed is set to LP mode.
66	LP V • MUTE	O	"HIGH" video mute signal output when tape speed in set to LP mode.
67	–	–	
68	–	–	
69	ML-M	O	Loading motor rotational speed (medium speed) indication signal.
70	ML-L	O	Loading motor rotational speed (low speed) indication signal.
71	ML-R	O	Loading motor rotational direction (REV) indication signal.
72	ML-F	O	Loading motor rotational direction (FWD) indication signal.
73	GND	–	IC ground terminal.
74	JPN/US/PAL	I	Terminal to alter internal specifications for destination areas. (0V input for SP only models, 0.6V input for SP/LP models.)
75	TAPE SPEED	I	Input of result of tape speed determination by digital servo IC.
76	OEM OPTION	I	Terminal to alter internal specifications. (0V input)
77	Hi-Fi ENV	I	AF head envelope detection signal input. (Used for ATR of Hi-Fi models)
78	ENV	I	Video head envelope detection signal input. (Used for ATR)
79	DEW S.	I	Dew sensor input terminal.
80	TAPE TOP S.	I	Sensor signal input for tape beginning detection.

P75516-0

IC351 (LC7418) DIGITAL SERVO IC PIN FUNCTIONS TABLE

Pin No.	I/O Terminal Name	I/O	Input/Output Function
1	ROTARY	O	Outputs the head switching control signal for 4-head and 3-head models.
2	H-AMP-SW	O	
3	RF-SW-PULSE	O	Video head switching pulse output.
4	AF-SW-PULSE	O	Audio head (FM) switching pulse output.
5	DL1	I	Dummy V_D insertion position control CR.
6	DL2	I	Dummy V_D insertion position control terminal.
7	CTL-IN	I	Control signal input.
8	REMAK	O	Outputs the control signal re-recording control signal. Three-value output (H, M, L).
9	REC-CTL	O	Recording control signal output. Three-value output (H, OPEN, L).
10	D-P	O	Outputs the drum compensation pulse in the slow mode.
11	D-PG. MM	I	CR for drum PG signal delay.
12	D-PG	I	Drum PG signal input.
13	D-FG	I	Drum FG signal input.
14	DSE	O	Outputs the speed error for drum system speed control. An output making the drum motor stop is delivered when DRUM-ON is "0". The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
15	FHE	O	Outputs the horizontal sync signal of the composite sync signal after F-V conversion (using the drum phase control system). The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
16	DPE		Error output for drum system phase control. The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
17	C-P	O	Outputs the capstan compensation pulse in the slow mode.
18	C-START/STP	O	Outputs the capstan motor start and brake pulses in the slow mode.
19	V_{DD}		+ 5V ± 10%
20	CSE	O	Capstan system speed error output. An output making the capstan motor stop is delivered when CAP-ON is "0". The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
21	CPE	O	Capstan system phase reciprocal error output. The lower three bits of the output data forms R-2R ladder network and the 4th bits for DAC (D/A Converter) and upper 5th to 8th bits for PWM (Pulse Width Modulation).
22	F/R	O	Capstan motor forward/reverse control output. "1" sets the reverse mode, and "0" the forward mode.
23	C-FG1	I	Capstan FG signal input.
24	C-FG2	I	2nd capstan FG signal input. Used for stop detection in the intermittent slow mode.
25	EP/LP/SP	O	Recording mode output. Three-value output ("H" is for EP mode, "M" for LP mode and "L" for SP mode).
26	SP	O	Recording mode output. "L" is for SP mode.
27	SP	O	Recording mode output. "H" is for SP mode.
28	MC-BR	I	Control input for capstan brake timing.
29	SLOW-TRK-CR	I	CR for slow tracking adjustment.
30	TRK-CR	I	CR for tracking adjustment.
31	D-PH	I	CR for drum compensation timing adjustment in the slow mode.
32	D-WD1	I	
33	D-WD2	I	
34	REF-TRK	O	Outputs the tracking delay input signal.
35	SLOW/STILL	O	Internal mode signal output. "H" in the slow mode.
36	MODE (× 2+STILL)	O	Mode decoding signal output. At the × 2 SPEED mode and starting time of SLOW/STILL mode, output "H" level.
37	INDEX-CLK	O	Outputs the timing for the control signal duty detector.
38	INDEX-DATA	O	Outputs the control signal duty detection results.
39	SV-S • CLK	I	Serial transmission clock pulse input.
40	SV-S • DATA	I	Serial data input terminal.
41	NTSC/PAL	I	NTSC/PAL switching input. "H" is for NTSC, "L" for PAL.
42	REF	O	Outputs the internal reference signal.
43	V_{DD}		+ 5V supply terminal
44	FSC IN	I	Input for the IC internal system clock pulse. A level of at least 0.3 Vp-p is required. The color subcarrier signal is input by capacitive coupling.
45	V_{SS}		Ground
46	C-SYNC	I	Composite sync signal input.
47	ENV SW	I	Head selection signal (PB envelope detection signal) input for 4-head special playback.
48	VD	O	Dummy V_D signal output.

LC7418

IC711 (M50959) TIMER MPU PIN FUNCTIONS TABLE

Pin No.	Port	Input/Output Signal	I/O	Input/Output Function
1	Vcc			+ 5V
2	$P6_5$	TXD	O	DATA signal output to VIDEO TEXT (TELETEXT) MPU.
3	$P6_4$	RXD	I	DATA signal input from VIDEO TEXT (TELETEXT) MPU.
4	$P6_3$	PLL CLK	O	Signal input/output of CLOCK, DATA, CE (chip enable) for PLL tuning system IC.
5	$P6_2$	PLL DATA	I/O	
6	$P6_1$	PLL CE	O	
7	$P6_0$/T	ADJUST	O	Pulse output (32.768kHz/1024 = 32Hz) for clock frequency adjustment.
8	$P2_7$	$\overline{\text{CLK}}$	O	Clock pulse output to the E^2 PROM.
9	$P2_6$	DI	I/O	Data exchange with the E^2 PROM.
10	$P2_5$	$\overline{E^2\text{ PROM CS1}}$	O	E^2 PROM 1 is accessed when "L".
11	$P2_4$	$\overline{\text{BG}}$/L	O	Transmission system switching ("L" = PAL BG ; "H" = SECAM L).
12	$P2_3$	VIDEO MUTE	O	"H" output during VIDEO MUTE.
13	$P2_2$	TUNER ON	O	"H" output when power is ON and during VPS scanning.
14	$P2_1$	$\overline{\text{AUDIO MUTE}}$	O	"L" output during AUDIO MUTE.
15	$P2_0$	TEXT CLK	O	CLOCK signal output to VIDEO-TEXT (TELETEXT) MPU.
16	$P3_7$/$\overline{\text{Srdy}}$		–	
17	$P3_6$/CLK	$\overline{\text{S.CLK}}$	I	SSB clock pulse input.
18	$P3_5$/Sout	$\overline{\text{S.OUT}}$	O	SSB data output.
19	$P3_4$/Sin	S.IN	I	SSB data input.
20	$P3_3$/ANin	AFT.C	I	AFT.S curve input.
21	$P3_2$/CNTR	H.SYNC	I	Sync. detection signal input for existing channel discrimination. ("L" = Existing Sync.)
22	$P3_1$	SCL	O	Clock pulse output to the VPS decoder IC.
23	$P3_0$	SDA	I/O	Data exchange with the VPS decoder IC.
24	$P5_3$/INT_1	$\overline{\text{POWER DOWN}}$	I	Power failure mode set at "L" input.
25	$P5_2$/INT_2	IR SIG. IN	I	Remote control signal input.
26	CNVss			Ground.
27	$\overline{\text{RESET}}$			Reset terminal.
28	Xin			6MHz clock terminal.
29	Xout			
30	Xcin			32.768kHz (clock OSC used in the power failure mode)
31	Xcout			
32	Vss			Ground
33	ϕ			
34	$P5_7$	KEY IN4	I	Key inputs
35	$P5_6$	KEY IN3	I	
36	$P5_5$	KEY IN2	I	
37	$P5_4$	KEY IN1	I	
38	Vp	Vp		-30V
39	$P5_1$	STEREO R	O	2-bit signal output for AUDIO OUTPUT SELECT and audio output display indication according to table below.
40	$P5_0$	STEREO L	O	
41	$P1_7$	o	O	Display segment outputs. (Included key-scan output)
42	$P1_6$	n	O	
43	$P1_5$	m	O	
44	$P1_4$	l	O	
45	$P1_3$	k	O	
46	$P1_2$	j	O	
47	$P1_1$	i	O	
48	$P1_0$	G9	O	Display grid outputs.
49	$P0_7$	G8	O	
50	$P0_6$	G7	O	
51	$P0_5$	G6	O	
52	$P0_4$	G5	O	
53	$P0_3$	G4	O	
54	$P0_2$	G3	O	
55	$P0_1$	G2	O	
56	$P0_0$	G1	O	
57	$P4_7$	h	O	Display segment outputs. (Included key-scan output)
58	$P4_6$	g	O	
59	$P4_5$	f	O	
60	$P4_4$	e	O	
61	$P4_3$	d	O	
62	$P4_2$	c	O	
63	$P4_1$	b	O	
64	$P4_0$	a	O	

NOTE : Clock frequency check with ADJUST terminal of Pin 7.

1. Connect the anode of the diode (IS188 etc.) to Pin 44 (key-scan l) and the cathode to Pin 37 (KEY IN 1). Then ground the Pin 27 ($\overline{\text{RESET}}$) terminal once and reset the microcomputer.
2. The clock frequency (32 Hz) can be observed with the ADJUST terminal of Pin 7 according to the servicing above.
3. In order to set normal function mode again, ground the terminal of Pin 27 ($\overline{\text{RESET}}$) once and reset the microcomputer after removing the diode connected to Pins 44 and 37.

PORT \ MODE	NORMAL	MAIN	SUB	STEREO
STEREO R (Pin 39)	L	L	H	H
STEREO L (Pin 40)	L	H	L	H

P50959F0

IC711 (M50958) TIMER MPU PIN FUNCTIONS TABLE (VHR-7500EX)

Pin No.	Port	Input/Output Signal	I/O	Input/Output Function
1	Vcc			+ 5V
2	$P6_5$	$\overline{\text{I}}$/BG	O	PAL transmission system switching ("L" = PAL I ; "H" = PAL BG)
3	$P6_4$		–	
4	$P6_3$/PWM3	BAND1	O	Band data output (BAND1, BAND2) (L, L) = VHF-LOW (L, H) = VHF-HIGH (H, L) = UHF (H, H) = SKIP
5	$P6_2$/PWM2	BAND2	O	
6	$P6_1$/PWM1	PWM	O	Tuning voltage output. (PWM signal)
7	$P6_0$/T	ADJUST	O	Pulse output (32.768kHz/1024 = 32Hz) for clock frequency adjustment.
8	$P2_7$	$\overline{\text{CLK}}$	O	Clock pulse output to the E^2 PROM.
9	$P2_6$	DI	I/O	Data exchange with the E^2 PROM.
10	$P2_5$	$\overline{E^2\text{ PROM CS1}}$	O	E^2 PROM 1 is accessed when "L".
11	$P2_4$	$\overline{\text{PAL}}$/SECAM	O	Transmission system switching ("L" = PAL ; "H" = SECAM).
12	$P2_3$	VIDEO MUTE	O	"H" output during VIDEO MUTE
13	$P2_2$	TUNER ON	O	"H" output when tuner power is ON.
14	$P2_1$	$\overline{\text{AUDIO MUTE}}$	O	"L" output during AUDIO MUTE.
15	$P2_0$	AFT MUTE	O	"H" output during AFT MUTE.
16	$P3_7$/$\overline{\text{Srdy}}$	$\overline{\text{CH +}}$	O	CH + system switching ("L" = CH + ON)
17	$P3_6$/CLK	$\overline{\text{S.CLK}}$	I	SSB clock pulse input.
18	$P3_5$/Sout	$\overline{\text{S.OUT}}$	O	SSB data output.
19	$P3_4$/Sin	S.IN	I	SSB data input.
20	$P3_3$/ANin	AFT.C	I	AFT.S curve input.
21	$P3_2$/CNTR	H.SYNC	I	Sync. detection signal input for existing channel discrimination. ("L" = Existing Sync.)
22	$P3_1$	SCL	O	Clock pulse output to the VPS decoder IC.
23	$P3_0$	SDA	I/O	Data exchange with the VPS decoder IC.
24	$P5_3$/INT_1	$\overline{\text{POWER DOWN}}$	I	Power failure mode set at "L" input.
25	$P5_2$/INT_2	IR SIG. IN	I	Remote control signal input.
26	CNVss			Ground.
27	$\overline{\text{RESET}}$			Reset terminal.
28	Xin			6MHz clock terminal.
29	Xout			
30	Xcin			32.768kHz (clock OSC used in the power failure mode)
31	Xcout			
32	Vss			Ground
33	ϕ			
34	$P5_7$	KEY IN4	I	Key inputs
35	$P5_6$	KEY IN3	I	
36	$P5_5$	KEY IN2	I	
37	$P5_4$	KEY IN1	I	
38	Vp	Vp		-30V
39	$P5_1$	STEREO R	O	2-bit signal output for AUDIO OUTPUT SELECT and audio output display indication according to table below.
40	$P5_0$	STEREO L	O	
41	$P1_7$	o	O	Display segment outputs. (Included key-scan output)
42	$P1_6$	n	O	
43	$P1_5$	m	O	
44	$P1_4$	l	O	
45	$P1_3$	k	O	
46	$P1_2$	j	O	
47	$P1_1$	i	O	
48	$P1_0$	G9	O	Display grid outputs.
49	$P0_7$	G8	O	
50	$P0_6$	G7	O	
51	$P0_5$	G6	O	
52	$P0_4$	G5	O	
53	$P0_3$	G4	O	
54	$P0_2$	G3	O	
55	$P0_1$	G2	O	
56	$P0_0$	G1	O	
57	$P4_7$	h	O	Display segment outputs. (Included key-scan output)
58	$P4_6$	g	O	
59	$P4_5$	f	O	
60	$P4_4$	e	O	
61	$P4_3$	d	O	
62	$P4_2$	c	O	
63	$P4_1$	b	O	
64	$P4_0$	a	O	

NOTE : Clock frequency check with ADJUST terminal of Pin 7.

1. Connect the anode of the diode (IS188 etc.) to Pin 44 (key-scan l) and the cathode to Pin 37 (KEY IN 1). Then ground the Pin 27 ($\overline{\text{RESET}}$) terminal once and reset the microcomputer.
2. The clock frequency (32 Hz) can be observed with the ADJUST terminal of Pin 7 according to the servicing above.
3. In order to set normal function mode again, ground the terminal of Pin 27 ($\overline{\text{RESET}}$) once and reset the microcomputer after removing the diode connected to Pins 44 and 37.

PORT \ MODE	NORMAL	MAIN	SUB	STEREO
STEREO R (Pin 39)	L	L	H	H
STEREO L (Pin 40)	L	H	L	H

P50958V0

K

J

I

CP-1 BOARD (TN-A) TUNER IF CONNECTION CIRCUIT DIAGRAM (VHR-7500EX)

H

G

F

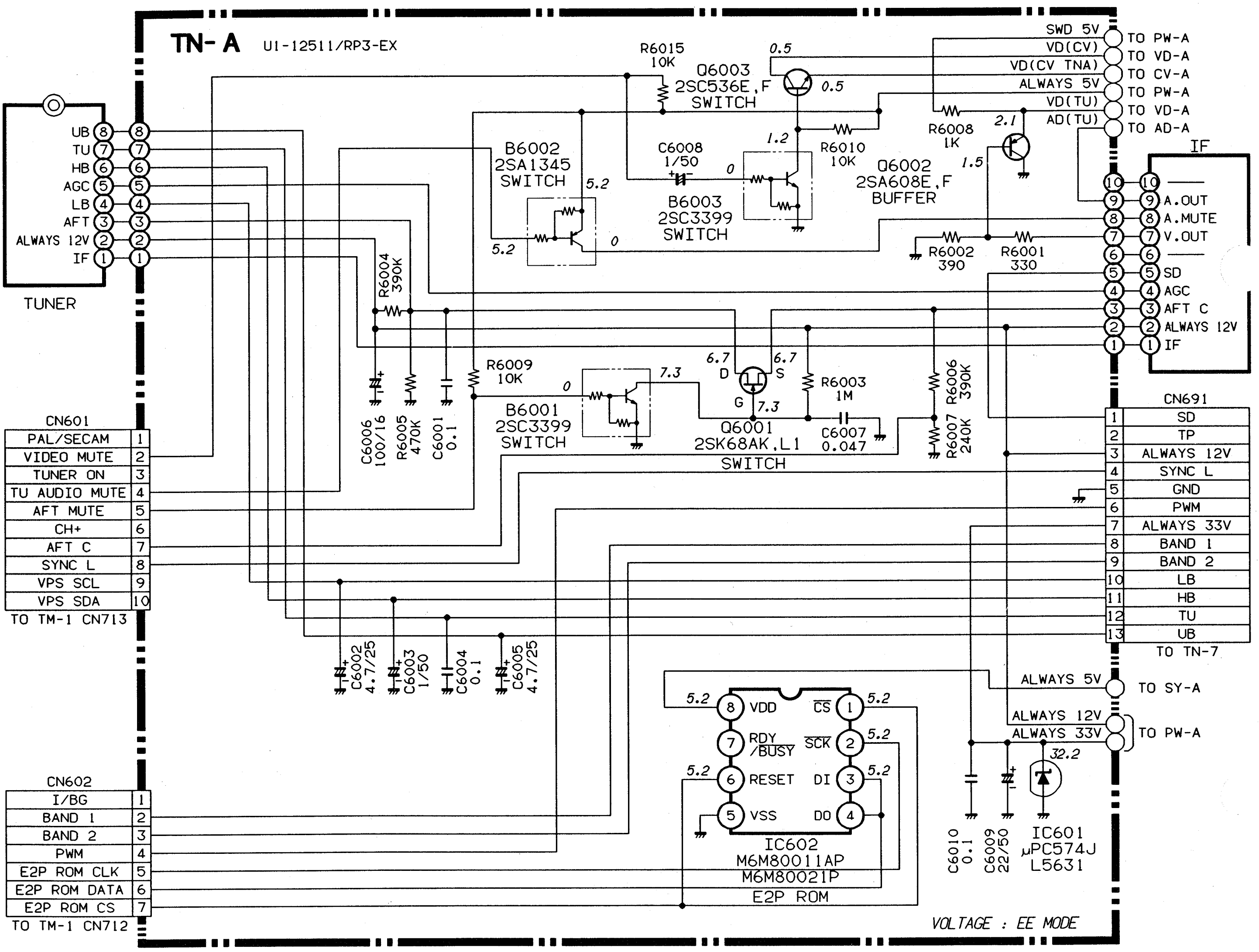
E

D

C

B

A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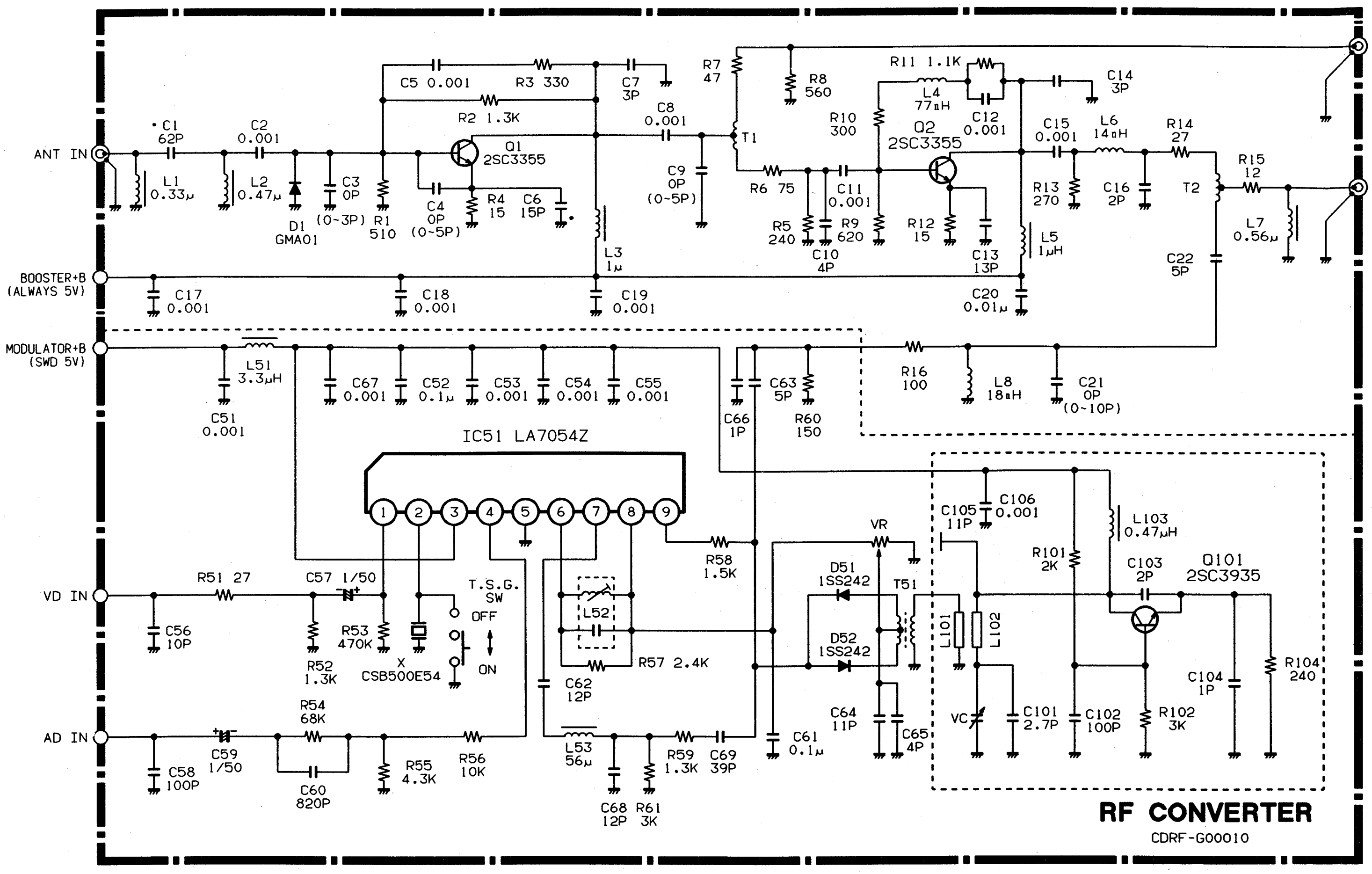
U1-12511/RP3-EX
TUNER
UB 8
TU 7
HB 6
AGC 5
LB 4
AFT 3
ALWAYS 12V 2
IF 1
CN601
PAL/SECAM 1
VIDEO MUTE 2
TUNER ON 3
TU AUDIO MUTE 4
AFT MUTE 5
CH+ 6
AFT C 7
SYNC L 8
VPS SCL 9
VPS SDA 10
TO TM-1 CN713
CN602
I/BG 1
BAND 1 2
BAND 2 3
PWM 4
E2P ROM CLK 5
E2P ROM DATA 6
E2P ROM CS 7
TO TM-1 CN712
R6015
10K
Q6003
2SC536E,F
SWITCH
0.5
0.5
B6002
2SA1345
SWITCH
5.2
5.2
0
C6008
1/50
0
1.2
B6003
2SC3399
SWITCH
R6010
10K
Q6002
2SA608E,F
BUFFER
R6008
1K
2.1
1.5
R6002
390
R6001
330
R6004
390K
R6009
10K
0
B6001
2SC3399
SWITCH
7.3
6.7
6.7
D
S
G
7.3
Q6001
2SK68AK,L1
SWITCH
R6003
1M
C6007
0.047
R6006
390K
R6007
240K
C6006
100/16
R6005
470K
C6001
0.1
C6002
4.7/25
C6003
1/50
C6004
0.1
C6005
4.7/25
SWD 5V
VD(CV)
VD(CV TNA)
ALWAYS 5V
VD(TU)
AD(TU)
TO PW-A
TO VD-A
TO CV-A
TO PW-A
TO VD-A
TO AD-A
IF
10 ——
9 A.OUT
8 A.MUTE
7 V.OUT
6 ——
5 SD
4 AGC
3 AFT C
2 ALWAYS 12V
1 IF
CN691
1 SD
2 TP
3 ALWAYS 12V
4 SYNC L
5 GND
6 PWM
7 ALWAYS 33V
8 BAND 1
9 BAND 2
10 LB
11 HB
12 TU
13 UB
TO TN-7
ALWAYS 5V
TO SY-A
ALWAYS 12V
ALWAYS 33V
TO PW-A
5.2
8 VDD
7 RDY /BUSY
5.2
6 RESET
5 VSS
CS 1
5.2
SCK 2
5.2
DI 3
5.2
DO 4
IC602
M6M80011AP
M6M80021P
E2P ROM
C6010
0.1
C6009
22/50
32.2
IC601
μPC574J
L5631
VOLTAGE : EE MODE

1 2 3 4 5 6 7 8

RF CONVERTER CIRCUIT DIAGRAM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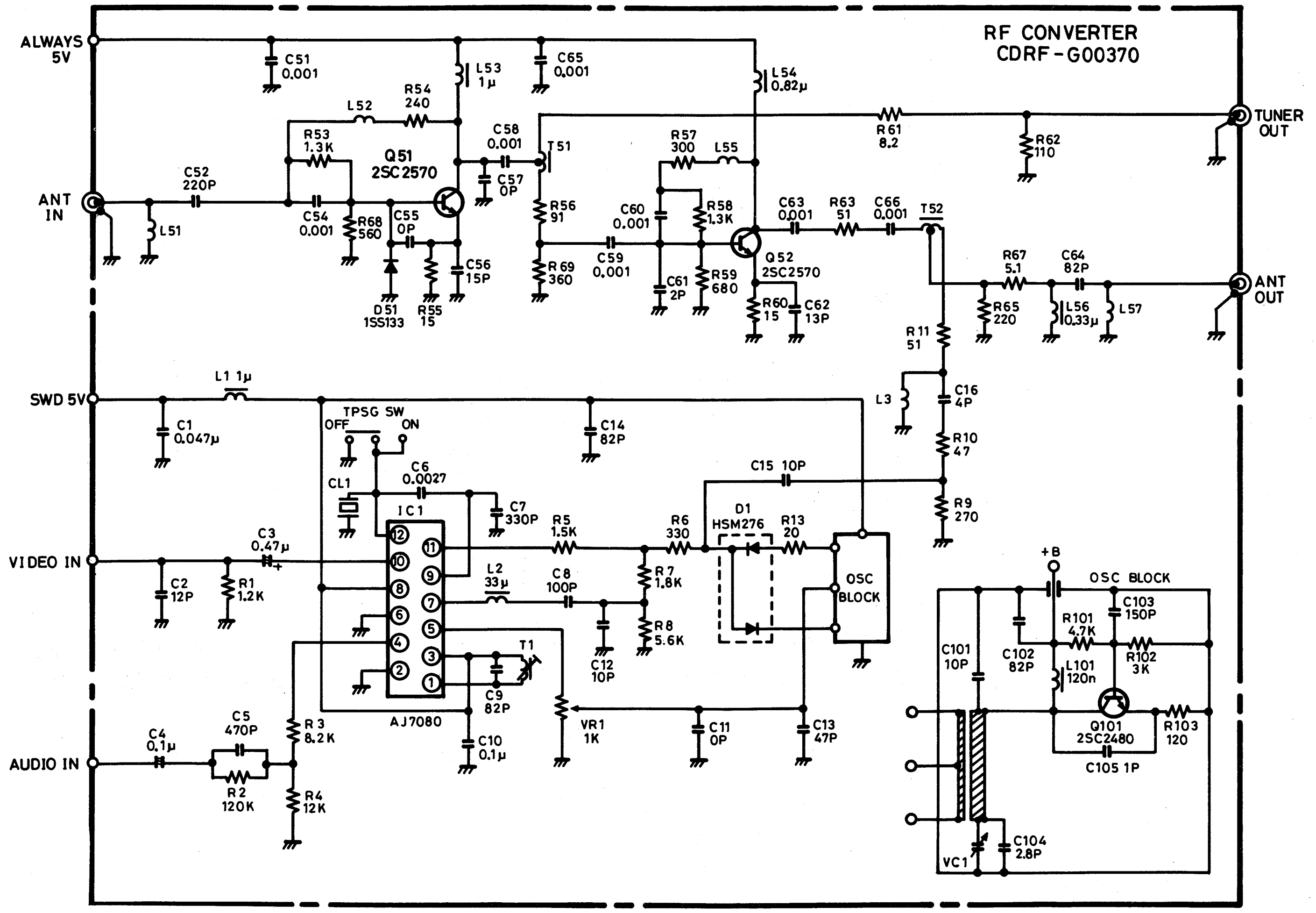
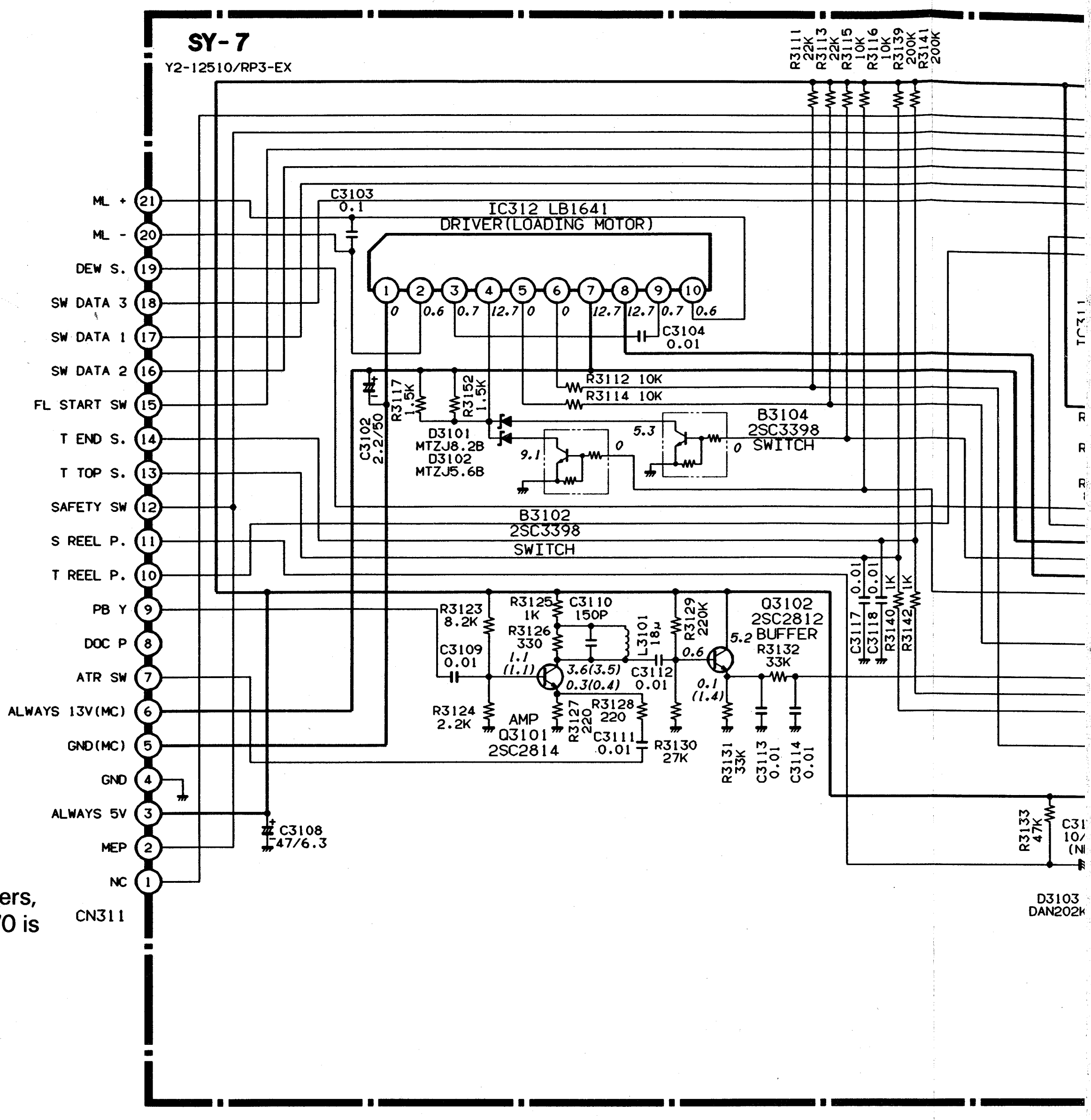
MODULATOR+B (SWD 5V)
VD IN
AD IN
TUNER OUT
ANT OUT
Q1 2SC3355
Q2 2SC3355
D1 GMA01
IC51 LA7054Z
T.S.G. SW
OFF
ON
X CSB500E54
D51 1SS242
D52 1SS242
T51
VR
L52
L53 56μ
Q101 2SC3935
L103 0.47μH
RF CONVERTER
CDRF-G00010

RF CONVERTER CIRCUIT DIAGRAM

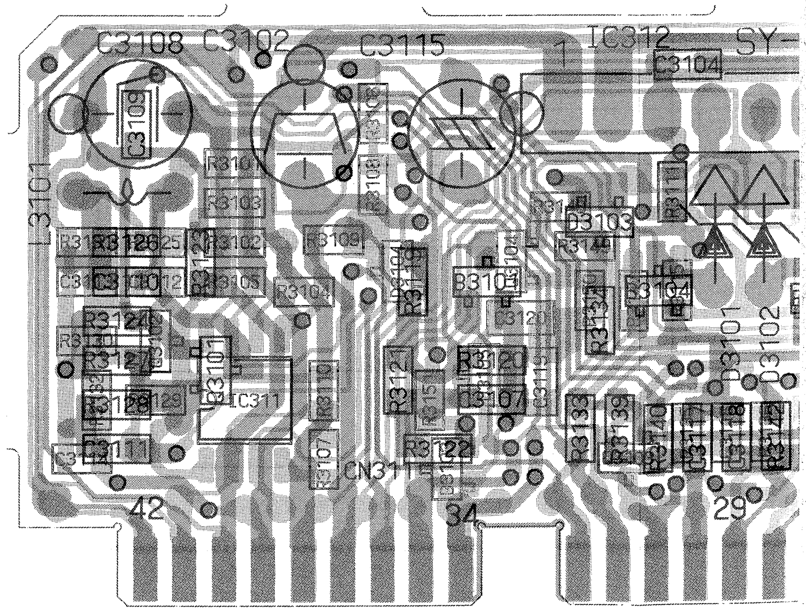

RF CONVERTER
CDRF-G00370
ALWAYS 5V
ANT IN
SWD 5V
VIDEO IN
AUDIO IN
TUNER OUT
ANT OUT
Q51 2SC2570
Q52 2SC2570
D51 1SS133
TPSG SW
OFF
ON
CL1
IC1
AJ7080
D1 HSM276
OSC BLOCK
+B
Q101 2SC2480
VR1 1K
VC1
C104 2.8P

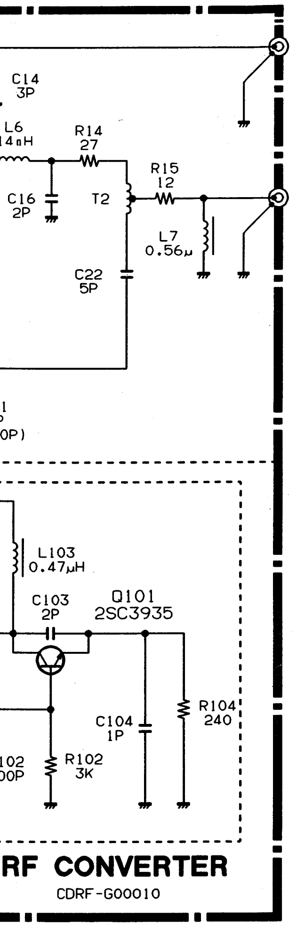
Note: Either one of these RF converters, type CDRF-G00010 or CDRF-G00370 is used, depending on availability.

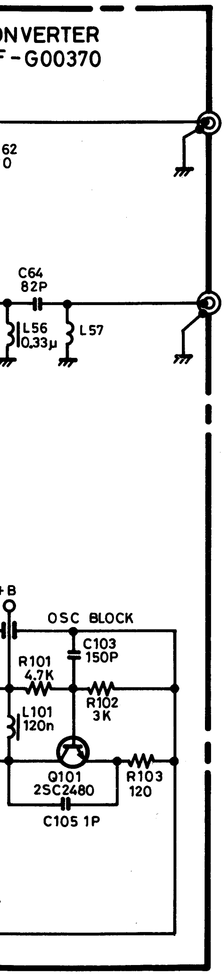
SY-7 BOARD LOADING MOTOR DRIVER & SENSO


SY-7
Y2-12510/RP3-EX
ML +
ML -
DEW S.
SW DATA 3
SW DATA 1
SW DATA 2
FL START SW
T END S.
T TOP S.
SAFETY SW
S REEL P.
T REEL P.
PB Y
DOC P
ATR SW
ALWAYS 13V(MC)
GND(MC)
GND
ALWAYS 5V
MEP
NC
CN311
IC312 LB1641
DRIVER(LOADING MOTOR)
B3104 2SC3398 SWITCH
B3102 2SC3398 SWITCH
D3101 MTZJ8.2B
D3102 MTZJ5.6B
Q3102 2SC2812 BUFFER
AMP Q3101 2SC2814
C3108 47/6.3
D3103 DAN202K

SY-7 P.C.B.

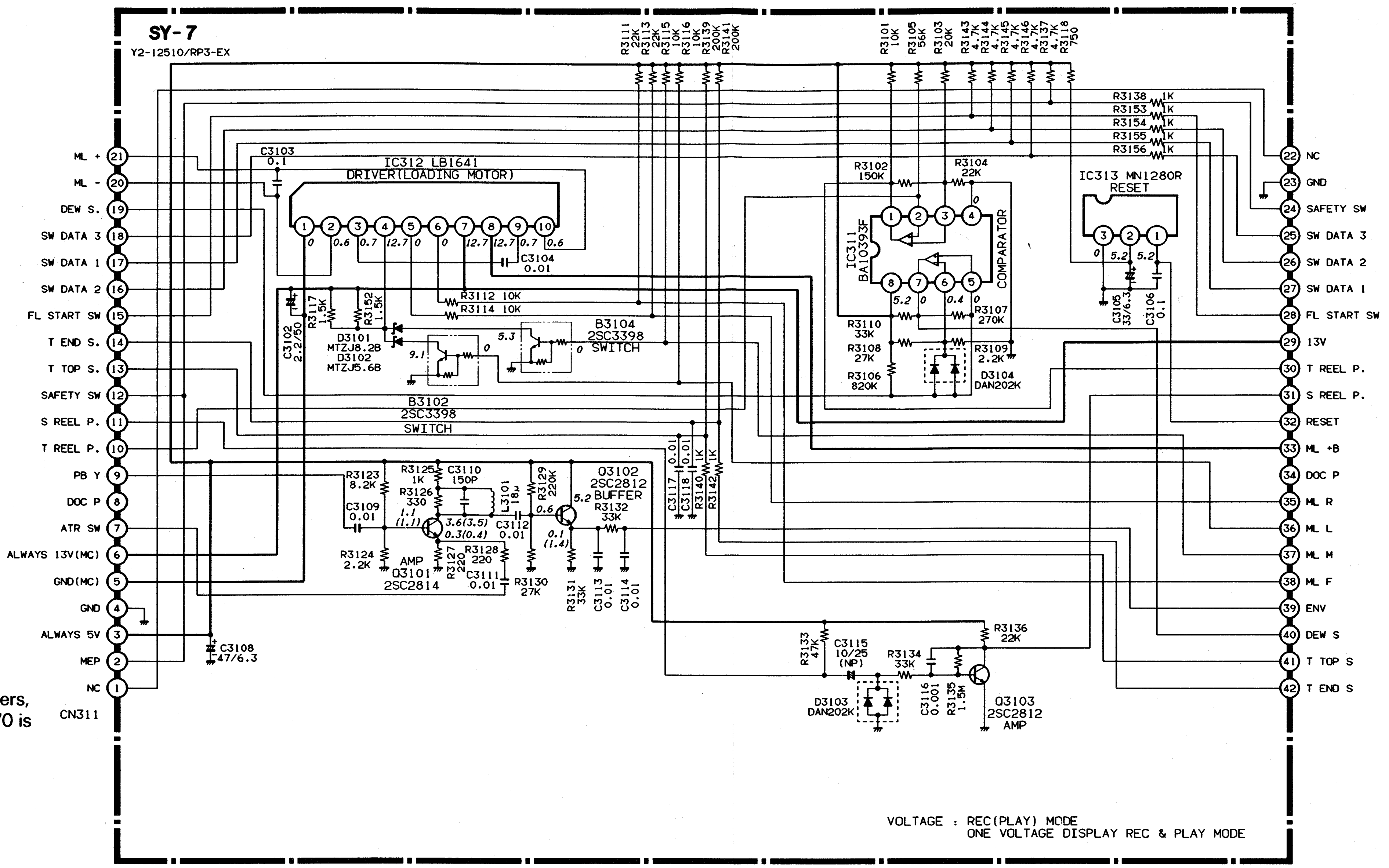



TUNER OUT
C14 3P
L6
R14 27
R15 12
C16 2P
T2
L7 0.56μ
ANT OUT
C22 5P
L103 0.47μH
C103 2P
Q101 2SC3935
C104 1P
R104 240
R102 3K
RF CONVERTER
CDRF-G00010

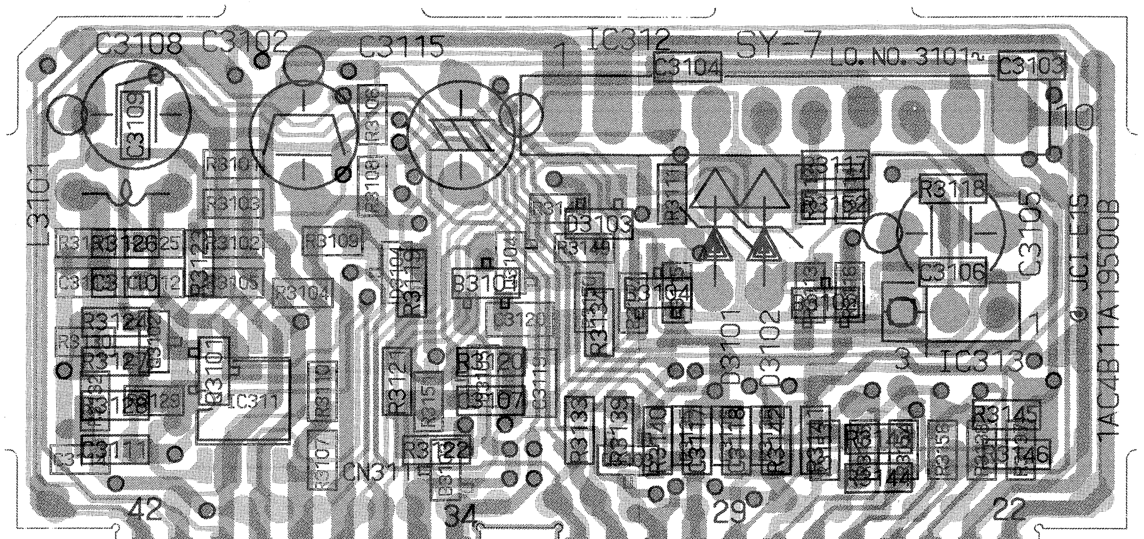

CONVERTER
F-G00370
TUNER OUT
C64 82P
L56 0.33μ
L57
ANT OUT
OSC BLOCK
C103 150P
R101 4.7K
L101 120n
R102 3K
Q101 2SC2480
R103 120
C105 1P

Note: Either one of these RF converters, type CDRF-G00010 or CDRF-G00370 is used, depending on availability.

SY-7 BOARD LOADING MOTOR DRIVER & SENSOR INPUT CIRCUIT DIAGRAM


SY-7
Y2-12510/RP3-EX
IC312 LB1641
DRIVER(LOADING MOTOR)
IC311 BA10393F
COMPARATOR
IC313 MN1280R
RESET
B3104 2SC3398 SWITCH
B3102 2SC3398 SWITCH
Q3102 2SC2812 BUFFER
Q3101 2SC2814 AMP
Q3103 2SC2812 AMP
D3101 MTZJ8.2B
D3102 MTZJ5.6B
D3104 DAN202K
D3103 DAN202K
CN311
ML + 21
ML - 20
DEW S. 19
SW DATA 3 18
SW DATA 1 17
SW DATA 2 16
FL START SW 15
T END S. 14
T TOP S. 13
SAFETY SW 12
S REEL P. 11
T REEL P. 10
PB Y 9
DOC P 8
ATR SW 7
ALWAYS 13V(MC) 6
GND(MC) 5
GND 4
ALWAYS 5V 3
MEP 2
NC 1
22 NC
23 GND
24 SAFETY SW
25 SW DATA 3
26 SW DATA 2
27 SW DATA 1
28 FL START SW
29 13V
30 T REEL P.
31 S REEL P.
32 RESET
33 ML +B
34 DOC P
35 ML R
36 ML L
37 ML M
38 ML F
39 ENV
40 DEW S
41 T TOP S
42 T END S
VOLTAGE : REC(PLAY) MODE
ONE VOLTAGE DISPLAY REC & PLAY MODE

SY-7 P.C.B.

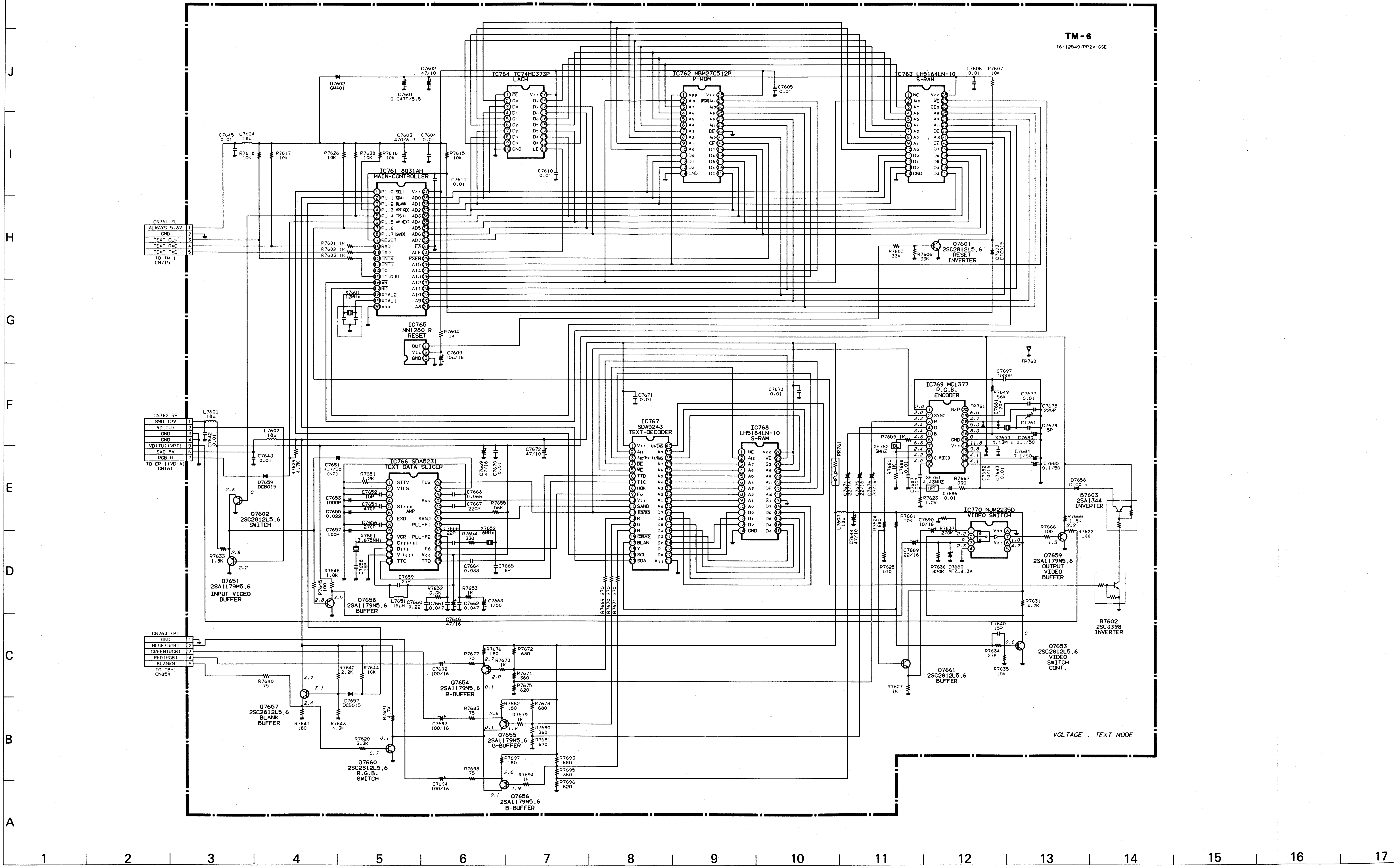

C3108 C3102 C3115 IC312 SY-7 LO. NO. 3101
C3104 C3103
L3101
IC313
CN311
42 34 29 22
1AC4B11A19500B
JCI-E15

▨ **BOTTOM SIDE FOIL**

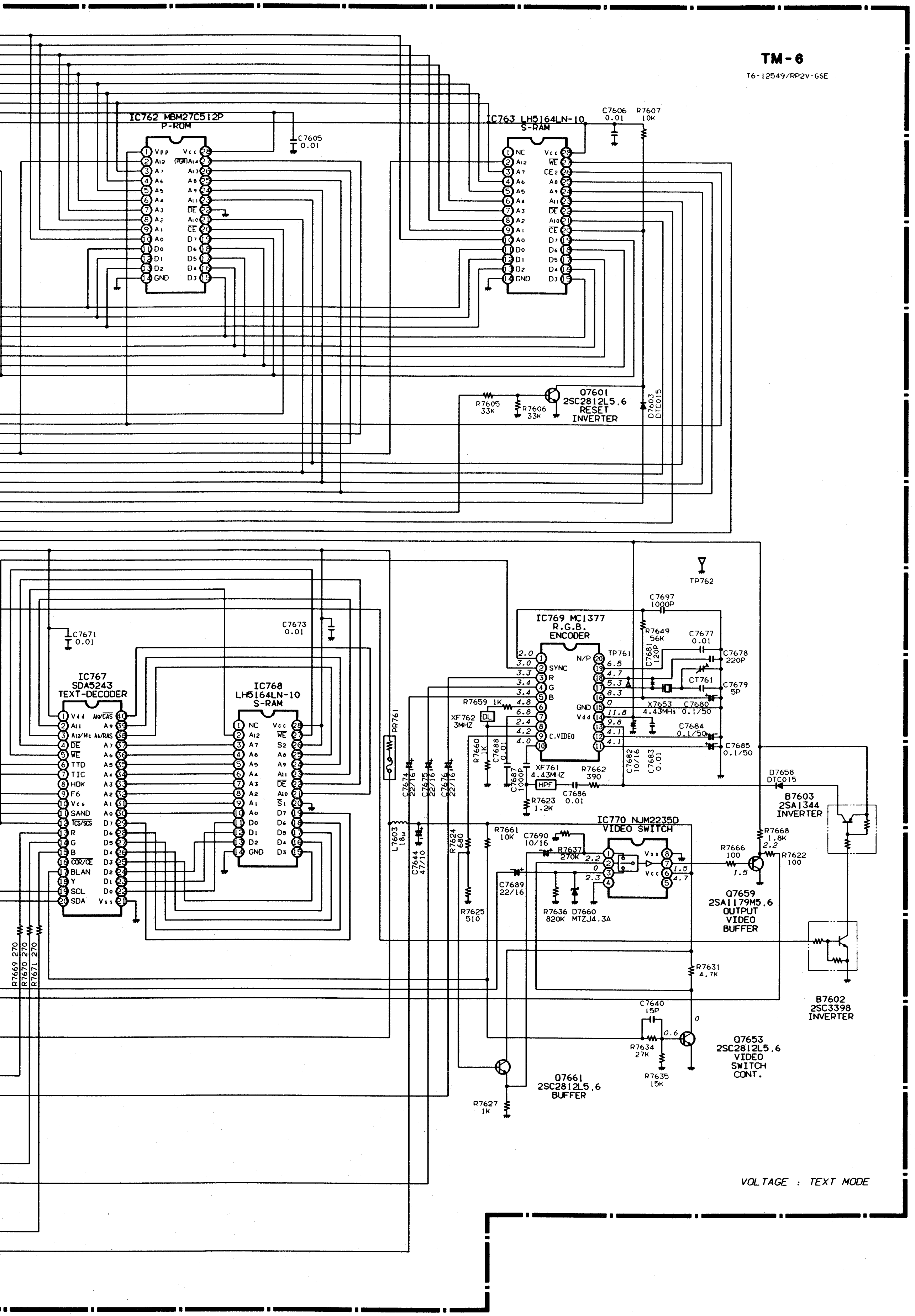
▨ **TOP SIDE FOIL**

7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23

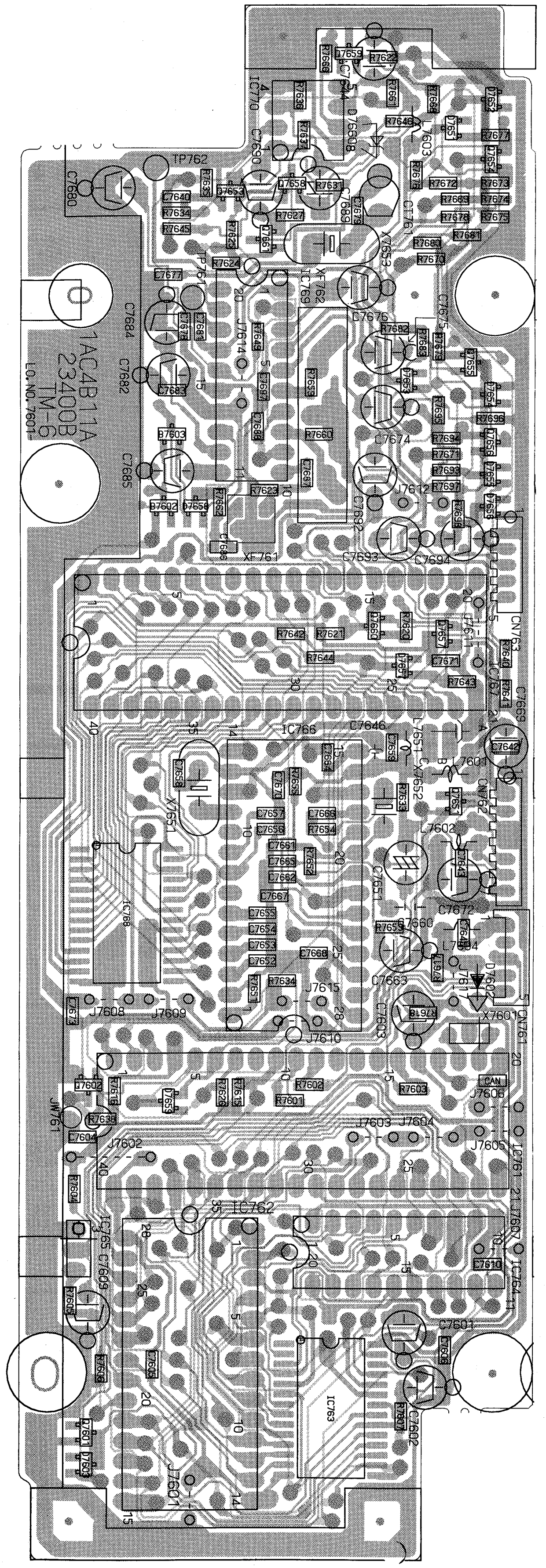
TM-6 BOARD VIDEO TEXT DECODER (VPT) CIRCUIT DIAGRAM (VHR-7540G)


TM-6
T6-12549/RP2V-GSE
IC764 TC74HC373P LACH
IC762 MBM27C512P P-ROM
IC763 LH5164LN-10 S-RAM
IC761 8031AH MAIN-CONTROLLER
IC765 MN1280 R RESET
IC766 SDA5231 TEXT DATA SLICER
IC767 SDA5243 TEXT-DECODER
IC768 LH5164LN-10 S-RAM
IC769 MC1377 R.G.B. ENCODER
IC770 NJM2235D VIDEO SWITCH
Q7601 2SC2812L5,6 RESET INVERTER
Q7602 2SC2812L5,6 SWITCH
Q7651 2SA1179M5,6 INPUT VIDEO BUFFER
Q7658 2SA1179M5,6 BUFFER
Q7654 2SA1179M5,6 R-BUFFER
Q7655 2SA1179M5,6 G-BUFFER
Q7656 2SA1179M5,6 B-BUFFER
Q7657 2SC2812L5,6 BLANK BUFFER
Q7660 2SC2812L5,6 R.G.B. SWITCH
Q7661 2SC2812L5,6 BUFFER
Q7653 2SC2812L5,6 VIDEO SWITCH CONT.
Q7659 2SA1179M5,6 OUTPUT VIDEO BUFFER
B7603 2SA1344 INVERTER
B7602 2SC3398 INVERTER
CN761 YL
ALWAYS 5.8V
GND
TEXT CLK
TEXT RXD
TEXT TXD
TO TM-1 CN715
CN762 RE
SWD 12V
VD(TU)
GND
GND
VD(TU)(VPT)
SWD 5V
RGB H
TO CP-1(VD-A) CN161
CN763 (P)
GND
BLUE(RGB)
GREEN(RGB)
RED(RGB)
BLANKN
TO TB-1 CN854
X7601 12MHz
X7651 13.875MHz
X7652 6MHz
X7653 4.43MHz
XF761 4.43MHZ
XF762 3MHZ
TP761
TP762
D7602 GMA01
D7603 DTC015
D7657 DCB015
D7658 DTC015
D7659 DCB015
D7660 MTZJ4.3A
VOLTAGE : TEXT MODE

DECODER (VPT) CIRCUIT DIAGRAM (VHR-7540G)


TM-6
T6-12549/RP2V-GSE
IC762 MBM27C512P
P-ROM
C7605 0.01
IC763 LH5164LN-10
S-RAM
C7606 0.01
R7607 10K
R7605 33K
R7606 33K
Q7601 2SC2812L5.6
RESET INVERTER
D7603 DTC015
TP762
C7697 1000P
IC769 MC1377
R.G.B. ENCODER
R7649 56K
C7677 0.01
C7678 220P
CT761
C7679 5P
X7653 4.43MHz
C7680 0.1/50
C7684 0.1/50
C7685 0.1/50
C7671 0.01
C7673 0.01
IC767 SDA5243
TEXT-DECODER
IC768 LH5164LN-10
S-RAM
PR761
R7659 1K
XF762 3MHZ
R7660 1K
XF761 4.43MHZ
HPF
R7662 390
C7686 0.01
R7623 1.2K
C7682 10/16
C7683 0.01
D7658 DTC015
B7603 2SA1344
INVERTER
L7603 18μ
C7644 47/10
R7624 680
R7625 510
R7661 10K
C7690 10/16
R7637 270K
C7689 22/16
R7636 820K
D7660 MTZJ4.3A
IC770 NJM2235D
VIDEO SWITCH
R7666 100
R7668 1.8K
R7622 100
Q7659 2SA1179M5.6
OUTPUT VIDEO BUFFER
R7631 4.7K
B7602 2SC3398
INVERTER
C7640 15P
R7634 27K
R7635 15K
Q7653 2SC2812L5.6
VIDEO SWITCH CONT.
Q7661 2SC2812L5.6
BUFFER
R7627 1K
R7669 270
R7670 270
R7671 270
VOLTAGE : TEXT MODE

TM-6 P.C.B. (VHR-7540G)

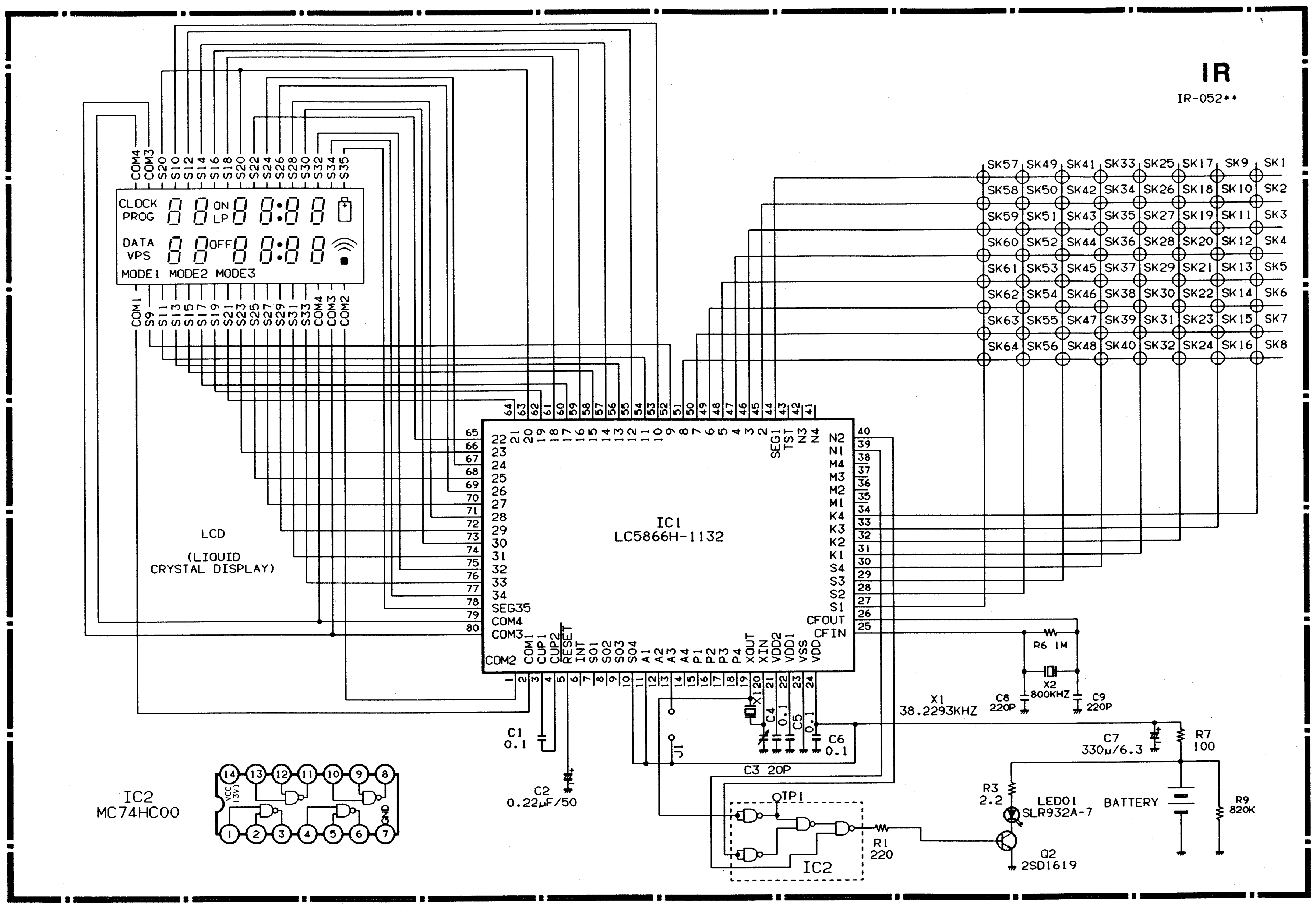

TP762
1AC4B11A
2340B
TM-6
LO.NO.7601
IC766
IC768
IC762
IC763
XF761
CN763
CN761
X7601
J7601
J7602
J7603
J7604
J7605
J7608
J7609
J7610
J7615

▨ **BOTTOM SIDE FOIL**

▨ **TOP SIDE FOIL**

8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24

IR REMOTE CONTROL CIRCUIT DIAGRAM (VHR-7540G)


IR
IR-052••
IC1
LC5866H-1132
LCD
(LIQUID CRYSTAL DISPLAY)
CLOCK
PROG
DATA
VPS
ON
LP
OFF
MODE1 MODE2 MODE3
COM1
COM2
COM3
COM4
SEG35
CUP1
CUP2
RESET
INT
XOUT
XIN
VDD1
VDD2
VSS
VDD
CFOUT
CFIN
SEG1
TST
IC2
MC74HC00
VCC (3V)
GND
X1
38.2293KHZ
X2
800KHZ
R6 1M
C8 220P
C9 220P
C1 0.1
C2 0.22µF/50
C3 20P
C4 0.1
C5 0.1
C6 0.1
J1
IP1
R1 220
R3 2.2
LED01
SLR932A-7
Q2
2SD1619
C7
330µ/6.3
R7 100
R9 820K
BATTERY
SK1–SK64

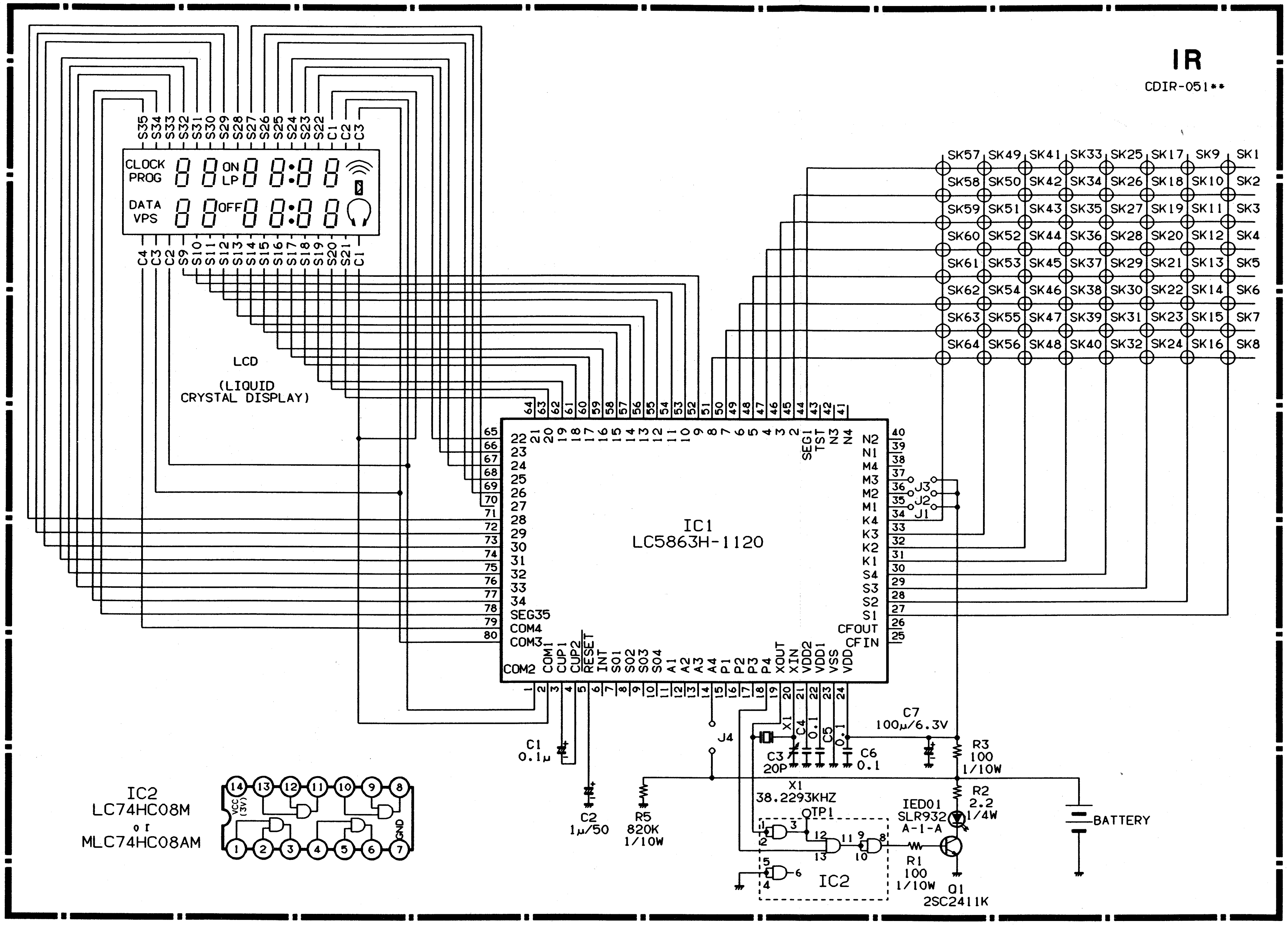
AVAILABLE KEY FUNCTION OF REMOTE CONTROL UNIT

KEY NO.	FUNCTION			
	MODE1		MODE2	
1	TRANS	USE	TRANS	USE
2	CLEAR		CLEAR	
3	VCR/TV		VCR/TV	
4	MODE	USE	MODE	USE
5	POWER	USE	POWER	USE
9	STATUS	USE	STATUS	USE
10	MENU	USE	MENU	USE
11	MONITOR	USE	MONITOR	USE
12	R.PLAY		R.PLAY	
13	SEQ		SEQ	
15	HOLD	USE	HOLD	USE
16	TV	USE	TV	USE
17	SC		A.SEL	
18	3	USE	3	USE
19	2	USE	2	USE
20	1	USE	1	USE
21	SP/LP	USE	SP/LP	USE
25	SPECIAL	USE	BLANK	USE
26	6	USE	6	USE
27	5	USE	5	USE
28	4	USE	4	USE
29	PROG	USE	CLOCK	USE
33	RESET	USE	REMAIN	USE
34	9	USE	9	USE
35	8	USE	8	USE
36	7	USE	7	USE
37	VPS	USE	CHECK	USE

KEY NO.	FUNCTION			
	MODE1		MODE2	
38	TIME	USE	TIME	USE
39	EXP	USE	EXP	USE
40	REVEAL	USE	REVEAL	USE
41	MEMORY	USE	MEMORY	USE
42	⇥	USE	⇥	USE
43	0/AV	USE	0/AV	USE
44	⇤	USE	⇤	USE
45	SEARCH	USE	MARK	USE
46	VPT	USE	VPT	USE
47	TITLE	USE	TITLE	USE
48	TEXT	USE	TEXT	USE
49	FF	USE	FF	USE
50	OK	USE	OK	USE
51	PLAY	USE	PLAY	USE
52	REW	USE	REW	USE
53	TRACK	USE	TRACK	USE
54	CURSOR ↓	USE	CURSOR ↓	USE
55	CURSOR ←	USE	CURSOR ←	USE
56	CANCEL	USE	CANCEL	USE
57	PAUSE/STILL	USE	PAUSE/STILL	USE
58	CURSOR →	USE	CURSOR →	USE
59	STOP	USE	STOP	USE
60	SLOW	USE	A.DUB	
61	REC	USE	INSERT	
62	CURSOR ↑	USE	CURSOR ↑	USE
63	MODE+	USE	MODE+	USE
64	MODE-	USE	MODE-	USE

IR-05204

IR REMOTE CONTROL CIRCUIT DIAGRAM (VHR-7500G, VHR-7500EX, VHR-7530G, VHR-8500SP)


IR
CDIR-051**
LCD
(LIQUID CRYSTAL DISPLAY)
CLOCK
PROG
DATA
VPS
ON
LP
OFF
IC1
LC5863H-1120
SEG35
COM4
COM3
COM2
CFOUT
CFIN
SK1
SK8
SK57
SK64
J1
J2
J3
J4
C1
0.1μ
C2
1μ/50
R5
820K
1/10W
X1
38.2293KHZ
TP1
C3
20P
C4
0.1
C5
0.1
C6
0.1
C7
100μ/6.3V
R3
100
1/10W
R2
2.2
1/4W
IED01
SLR932
A-1-A
R1
100
1/10W
Q1
2SC2411K
BATTERY
IC2
LC74HC08M
or
MLC74HC08AM
VCC (3V)
GND

AVAILABLE KEY FUNCTION OF REMOTE CONTROL UNIT

KEY NO.	FUNCTION	
1	PAUSE	USE
2	STOP	USE
3	MODE -	USE
4	REC	USE
5		USE
6	MODE +	USE
7	SEARCH	USE
8	SLOW	USE
9	FF	USE
10	PLAY	USE
11	BLANK	USE
12	REW	USE
13	A.TR	USE
14	C.DISP	USE
15	SPECIAL	USE
16	RESET	USE
17	EJECT	
18	R.PLAY	
19	X2S	
20	A.DUB	
21	INSERT	
22	↓	

KEY NO.	FUNCTION	
23	MARK	USE
24	CNT M	USE
25	CH +	USE
26	0/AV	USE
27	CH -	USE
28	A.SEL	
29	CANCEL	USE
30	←	
31	↑	
32	→	
33	9	USE
34	8	USE
35	7	USE
36	SC	
37	CLOCK	USE
38	SIZE	
39	ART	
40	INST	
41	6	USE
42	5	USE
43	4	USE
44	SP/LP	USE

KEY NO.	FUNCTION	
45	CHECK	USE
46	CHSCAN	
47	OK	
48	M.STILL	
49	3	USE
50	2	USE
51	1	USE
52	VPS	USE *1
53	PROG	USE
54	M.CALL	
55	OSD	
56	ERASE	
57	TRANS	USE
58	ZOOM	
59	MONITOR	USE
60	VCR/TV	
61	POWER	USE
62	PRESET	
63	NR	
64	MUTE	

IR-05122+

NOTE

	*1
VHR-7500G VHR-7530G	USE
VHR-7500EX VHR-8500SP	NOT USE